

FINAL  
ENVIRONMENTAL ASSESSMENT  
CONSTRUCTION OF CONSOLIDATED  
COMMUNICATIONS FACILITY  
LANGLEY AFB, VA



AUGUST 2005

Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>18 AUG 2005</b>		2. REPORT TYPE <b>Environmental Assessment</b>		3. DATES COVERED <b>00-00-2003 to 00-00-2005</b>	
4. TITLE AND SUBTITLE <b>Environmental Assessment for Construction of A Consolidated Communications Facility at Langley Air Force Base, Virginia</b>			5a. CONTRACT NUMBER <b>DACA63-00-D-0004, DO 101</b>		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) <b>Gloria Hagge; Richard McKissock; Joseph Fleming; Kimberly Brown; Albertina Dowe</b>			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>J.M. Waller and Associates, Inc., Tidewater Office, 11828 Canon Boulevard, Suite A, Newport News, VA, 23606</b>			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) <b>USACE, Ft. Worth District, Attn: CESWF-RM-B, P.O. Box 17300, Ft. Worth, TX, 76102-1402</b>			10. SPONSOR/MONITOR'S ACRONYM(S) <b>USACE</b>		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>The original document contains color images.</b>					
14. ABSTRACT <b>This EA describes the potential environmental consequences resulting from a proposal to construct a consolidated communications facility in the North Base Support Area of Langley AFB. Nine resource categories received a thorough evaluation to identify potential impacts. During work, minor and temporary negative impacts would be seen in air quality, noise, and safety. Minor impacts would also be felt in the biological (wildlife), hazardous waste, and water resources. The placement of the communications facility at the proposed site would be consistent with the base General Plan, and the action is expected to improve the roads and transportation use in the area in the long-term. The action will lead to a temporary improvement in socioeconomics due to job creation, and this action and other related work would improve the aesthetic quality of the area. No long term environmental consequences are anticipated.</b>					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>1</b>	18. NUMBER OF PAGES <b>142</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

## Table of Contents

<u>Section</u>	<u>Page</u>
<b>EXECUTIVE SUMMARY .....</b>	<b>ES-1</b>
<b>1.0 PURPOSE AND NEED .....</b>	<b>1-1</b>
1.1 Introduction .....	1-1
1.2 Background .....	1-1
1.3 Purpose and Need .....	1-4
1.4 Regulatory Compliance .....	1-4
1.5 Public and Agency Involvement .....	1-6
<b>2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES .....</b>	<b>2-1</b>
2.1 Proposed Action .....	2-1
2.2 Alternative A .....	2-3
2.3 No-Action Alternative .....	2-8
2.4 Alternatives Considered but not Carried Forward .....	2-8
2.5 Comparison of Alternatives .....	2-9
<b>3.0 AFFECTED ENVIRONMENT .....</b>	<b>3-1</b>
3.1 Air Quality .....	3-1
3.2 Water Resources .....	3-3
3.2.1 Watershed .....	3-3
3.2.2 Floodplain .....	3-3
3.2.3 Coastal Zone .....	3-4
3.3 Biological Resources .....	3-6
3.3.1 Terrestrial Communities .....	3-6
3.3.2 Wetland and Freshwater Aquatic Communities .....	3-6
3.3.3 Threatened, Endangered, and Special Status Species/Communities .....	3-7
3.4 Cultural Resources .....	3-9
3.5 Land Use .....	3-12
3.6 Hazardous Waste Management and Environmental Restoration .....	3-16
3.6.1 Hazardous Waste Management .....	3-16
3.6.2 Environmental Restoration Program Sites .....	3-16
3.7 Socioeconomics and Environmental Justice .....	3-19
3.7.1 Demographics .....	3-19
3.7.2 Environmental Justice .....	3-20
3.8 Noise .....	3-20

3.9	Safety and Occupational Health .....	3-21
<b>4.0</b>	<b>ENVIRONMENTAL CONSEQUENCES.....</b>	<b>4-1</b>
4.1	Air Quality .....	4-1
4.1.1	Proposed Action .....	4-1
4.1.2	Alternative A .....	4-4
4.1.3	No-Action Alternative.....	4-4
4.2	Water Resources.....	4-4
4.2.1	Proposed Action .....	4-5
4.2.2	Alternative A .....	4-5
4.2.3	No-Action Alternative.....	4-6
4.3	Biological Resources.....	4-6
4.3.1	Proposed Action .....	4-6
4.3.2	Alternative A .....	4-8
4.3.3	No-Action Alternative.....	4-9
4.4	Cultural Resources .....	4-9
4.4.1	Proposed Action .....	4-10
4.4.2	Alternative A .....	4-11
4.4.3	No-Action Alternative.....	4-11
4.5	Land Use .....	4-11
4.5.1	Proposed Action .....	4-11
4.5.2	Alternative A .....	4-14
4.5.3	No-Action Alternative.....	4-15
4.6	Hazardous Waste Management and Environmental Restoration .....	4-17
4.6.1	Proposed Action .....	4-17
4.6.2	Alternative A .....	4-18
4.6.3	No-Action Alternative.....	4-18
4.7	Socioeconomics and Environmental Justice .....	4-18
4.7.1	Proposed Action .....	4-19
4.7.2	Alternative A .....	4-19
4.7.3	No-Action Alternative.....	4-20
4.8	Noise .....	4-20
4.8.1	Proposed Action .....	4-20
4.8.2	Alternative A .....	4-21

4.8.3	No-Action Alternative.....	4-21
4.9	Safety and Occupational Health.....	4-21
4.9.1	Proposed Action.....	4-22
4.9.2	Alternative A .....	4-22
4.9.3	No-Action Alternative .....	4-22
5.0	<b>CUMULATIVE EFFECTS AND IRREVERSIBLE AND IRRETRIEVBLE</b>	
	<b>COMMITMENT OF RESOURCES .....</b>	<b>5-1</b>
5.1	CUMULATIVE EFFECTS.....	5-1
5.1.1	Definition of Cumulative Effects .....	5-1
5.1.2	Past, Present and Reasonably Foreseeable Actions .....	5-2
5.1.3	Analysis of Cumulative Impacts .....	5-3
5.2	IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES .....	5-3
6.0	<b>REFERENCES .....</b>	<b>6-1</b>
7.0	<b>LIST OF PREPARERS .....</b>	<b>7-1</b>
 <b>APPENDIX A: Coordination/Consultation Letters</b>		
 <b>APPENDIX B: Government Furnished Comments</b>		
 <b>APPENDIX C: Air Emissions Calculations</b>		
 <b>APPENDIX D: Proof of Publication</b>		
 <b>APPENDIX E: Federal Consistency Determination Report</b>		

## List of Figures

1.2-1	Location of Langley AFB .....	1-3
2.3-1	Location of Proposed Action and Alternative A for the Consolidated Communications Facility and Existing Facilities that would be relocated to Proposed New Facility.....	2-5
2.3-2	Location of Proposed Project Area Including Proposed Building and Parking Lot in the North Base Support Area.....	2-6
2.3-3	Location of Proposed Action and Alternative A for the Consolidated Communications Facility within Langley AFB .....	2-7
3.2.2-1	Proposed Action and Alternative A Proposed Construction Locations and Relation to 100-Year Floodplain and Wetlands .....	3-5
3.4-1	Proposed Action and Alternative A Proposed Construction Location and Relation to the Historic District of the East Side of the Base .....	3-11
3.5.1	Current Land Use Surrounding the Proposed Construction Locations.....	3-15
3.6.2-1	ERP Sites Near the Proposed Construction Locations.....	3-18
3.8-1	Day-Night Noise Level Contours and Relation to the Proposed Construction Locations.....	3-22
4.5-1	Proposed Land Use of the North Base Support Area Imposed on the Current Land Use.....	4-16

## List of Tables

1.4-1	Regulatory Compliance Requirements .....	1-5
2.6-1	Summary of Potential Environmental Impacts .....	2-9
3.1-1	National Ambient Air Quality Standards.....	3-2
3.3.2-1	Langley AFB Wetland Types and Acreage .....	3-7
3.3.3-1	Federally Listed, Proposed and Candidate Species of Concern Within a 50-mile Radius of Langley AFB.....	3-9
3.7.1-1	Breakdown of Population Associated with Langley AFB .....	3-19
4.1.1-1	CY03 Air Emissions Inventory Summary of Air Emissions .....	4-3
4.1.1-2	Air Emissions from Consolidated Communications Facility .....	4-3

## Acronyms and Abbreviations

ACC	Air Combat Command
ADP	Area Development Plan
AFB	Air Force Base
AICUZ	Air Installation Compatible Use Zone
AQCR	Air Quality Control Region
AT/FP	Antiterrorism/Force Protection
AW	Airlift Wing
BASH	Bird-Aircraft Strike Hazard
C2	Command & Control
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
COMSEC	Communications Security
CS	Communications Squadron
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dBA	A-Weighted Decibel
DNL	Average Day-Night Sound Level
DoD	Department of Defense
DOT	Department of Transportation
EA	Environmental Assessment
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ERP	Environmental Restoration Program
ESA	Endangered Species Act
FW	Fighter Wing
GIS	Geographic Information System
HHS	Health and Human Services
HQ ACC	Headquarters Air Combat Command

HVAC	heating, ventilation, and air conditioning
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
INRMP	Integrated Natural Resources Management Plan
LAN	local area network
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historical Preservation Act
NOC	Network Operations Center
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
ppm	parts per million
RCRA	Resource Conservation and Recovery Act
SCIF	Sensitive Compartmentalized Information Facility
SF	square foot
SHPO	State Historic Preservation Office
SMSA	Standard Metropolitan Statistical Area
SWPPP	Storm Water Pollution Prevention Plan
U.S.	United States
UFMP	Urban Forest Management Plan
USAF	United States Air Force
USCB	United States Census Bureau
USFWS	United States Fish and Wildlife Service
VAC	Virginia Administrative Code
VCRMP	Virginia Coastal Resources Management Program
VDCR	Virginia Department of Conservation and Recreation
VDEQ	Virginia Department of Environmental Quality
VOCs	volatile organic compounds
VPDES	Virginia Pollutant Discharge Elimination System



**FINDING OF NO SIGNIFICANT IMPACT FINDING OF NO PRACTICABLE ALTERNATIVE  
LANGLEY AIR FORCE BASE CONSTRUCTION OF A CONSOLIDATED COMMUNICATIONS  
FACILITY**

The following Finding of No Significant Impact/Finding of No Practicable Alternative (FONSI/FONPA) addresses actions proposed by the United States Air Force and 1 Fighter Wing (FW) to construct a Consolidated Communications Facility in the North Base Support Area of Langley Air Force Base (AFB) in the Hampton Roads, Virginia area. The FONSI/FONPA documents the Air Force's compliance with the requirements of the National Environmental Policy Act (NEPA), the Environmental Impact Analysis Process as codified in 32 Code of Federal Regulations [CFR] 989, Executive Order 11990, Protection of Wetlands, and Executive Order 11988, Floodplain Management.

**Description of the Proposed Action and Alternatives**

The Proposed Action is required to provide operational and functional space for a robust communications operations infrastructure and enhance the information assurance posture of Langley's mission critical Command & Control (C2) communications assets. Currently, there is substandard force protection because of numerous information assurance vulnerabilities, inadequate electrical power infrastructure, likelihood of flooding in the 100-year floodplain, and limited potential for future growth and expansion. The Proposed Action would provide a new 87,284 square foot (SF) Consolidated Communications Facility and associated parking lot. A new consolidated facility would centralize the seven separate buildings that currently house 1 CS functions, creating a setting that would be more convenient and would provide the needed storage space that is currently not available.

The Consolidated Communications Facility would include the construction of a loading dock, miscellaneous storage space, auditorium, copier/plotter rooms, conference rooms, NIPR/SIPRNet generators, and break areas and adjoining parking lots. It would also include the redirection of traffic patterns in the area. This project would consolidate 1 Communications Squadron (CS) functions into a single location in the North Base Support Area, as well as rehabilitate the exterior shells of Buildings 1004, which is condemned due to asbestos and lead-based paint contamination, and 1007 to be used for storage of large equipment and materials adjacent to the proposed site.

Special requirements include installation of separate backup generators for NIPRNet, SIPRNet, and telephone communications equipment. Locating critical operational communication nodes on the second floor would eliminate the potential for catastrophic failure due to being within the 100-year floodplain.

An alternative, referred to as Alternative A, to the proposed site would be to construct the same facility just south of the North Base Support Area south of Weyland Road and west of South Roma Road on the existing ball fields and parking lot west of building 801. Alternative A would include all of the provisions of the new building presented in Section 2.1 and would provide the same operational/functional space as described in the Proposed Action. This Alternative would not be located in the North Base Support Area; therefore, would not be involved with nor meet the goals of the North Base Support ADP, detailed in Section 2.1. The No Action Alternative involves no construction. The current communications facility situation and North Base Support Area would remain in its current status.

#### **Summary of Anticipated Environmental Impacts Associated with the Proposed Action**

The Proposed Action would not result in any major environmental consequences and would involve some improvements, such as the improvement of the aesthetic value and transportation use of the North Base Support Area. The EA provides an analysis of the potential environmental impacts associated with the proposed action for nine resource categories (air quality, water, biological resources, cultural resources, land use, hazardous material and waste management, socioeconomic and environmental justice, noise, and safety and occupational health).

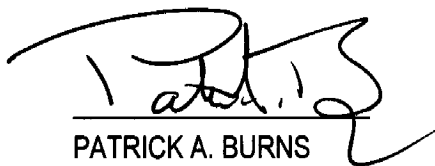
During use of heavy machinery for the construction process, minor short-term negative impacts would occur to the following resources: increased levels of air emissions, potential increase in soil erosion and hazardous substance contamination of surface and storm waters, increase noise levels, short-term disturbance of wildlife habitat areas, increased hazardous material use and creation of waste, and increased worker safety concerns. There would be an increase in jobs during the action periods, creating a minor short-term positive effect on socioeconomics. There would be negligible to no impact on environmental justice. The Proposed Action does not involve

filling wetlands or physical alteration of floodplains, nor would it involve the introduction of dredged or fill material into wetlands or other waters of the United States. Therefore, a Section 404 permit from the Army Corps of Engineers is not required.

There would be negligible to no long-term impacts on all resource areas, except for a positive impact on land use and cultural resources on the North Base Support Area. The construction of the new facility would improve the transportation use of the North Base Support Area as well as rehabilitate two historical buildings, 1004 and 1007, which would improve the visuals and aesthetics. The construction would also involve the demolition of the water tower, a historic building. The water tower is in a deteriorated condition and would require eventual renovation or demolition. Nearly all of Langley AFB is located on a floodplain; therefore, there is no practical alternative to construction on the base, other than on a floodplain.

#### **Conclusion**

Based on the findings of the EA, no significant impact is anticipated from implementation of the Proposed Action or the alternatives. Therefore, issuance of a Finding of No Significant Impact (FONSI) is warranted and an environmental impact statement is not required. Pursuant to Executive Order (EO) 11988, the authority delegated in Secretary of the Air Force Order (SAFO) 791.1, and taking the above information into account, I find that there is no practicable alternative to this action and that the Proposed Action includes all practicable measures to minimize harm to wetlands and floodplain environments.



PATRICK A. BURNS

Brigadier General, USAF  
Director of Installations (A7)

18 AUG 2005

DATE

## EXECUTIVE SUMMARY

This Environmental Assessment (EA) identifies and evaluates the environmental impacts of Langley Air Force Base's (AFB) proposal to construct a consolidated communications facility in the North Base Support Area. This EA has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA), and the Environmental Impact Analysis Process, as codified in 32 Code of Federal Regulations [CFR] 989 and Regulations established by the Council on Environmental Quality (CEQ), 40 CFR 1500-1508). The EA process is designed to:

- ensure the public is involved in the process and fully informed about the potential environmental effects, and
- help decision makers take environmental factors into consideration when making their decision.

The purpose of this proposal is to address the limited information assurance posture and the inability to operate and maintain Langley's mission critical C2 communications assets to meet the current and future Air Force mission requirements at Langley AFB. The proposal would provide sufficient and centralized operation/functional space for robust communications operations infrastructure and enhance the information assurance posture of the Air Force's mission critical C2 communications assets at Langley AFB. The action would provide a new 87,284 square foot (SF) consolidated communications facility and associated parking lot that is needed in order to contain all communications facilities into one building. This new building would be more convenient and would provide the needed storage space that currently is not available. The consolidated communications facility would include the construction of a loading dock, miscellaneous storage space, auditorium, copier/plotter rooms, conference rooms, NIPR/SIPRNet generators, and break areas, adjoining parking lots, and will include the redirection of traffic patterns in the area. This project would consolidate 1 Communications Squadron (CS) functions into a single location in the North Base Support Area, as well as rehabilitate the exterior shells of Buildings 1004, which is condemned due to asbestos and lead-based paint contamination, and 1007 to be used for storage of large equipment and materials adjacent to the proposed site.

An alternative to the proposed action would be construct the same building to the south of the North Base Support Area on land currently used as recreational fields and parking. Also, a no action alternative is

analyzed within this EA. This involves maintaining the baseline conditions that currently exist on Langley AFB.

### **Summary of Environmental Impacts**

This EA provides an analysis of the potential environmental impacts associated with the proposed action for nine resource categories (air quality, water, biological resources, cultural resources, land use, hazardous material and waste management, socioeconomic and environmental justice, noise, and safety and occupational health). As indicated in Chapter 4, the proposed action and alternatives would not result in any major environmental consequences.

During use of heavy machinery associated with the construction process, minor short-term negative impacts would occur to the following resources: increased levels of air emissions, potential increase in soil erosion and hazardous substance contamination of surface and storm waters, increase noise levels, short-term disturbance of wildlife habitat areas, increased hazardous material use and creation of waste, and increased worker safety concerns. There would be an increase in jobs during the action periods, creating a minor short-term positive effect on socioeconomics. There would be negligible to no impact on environmental justice and cultural resources.

There would be negligible to no long-term impacts on all resources areas, except for a positive impact on land use on the North Base Support Area. The construction of the new facility and other North Base Support Area improvements would improve the aesthetic value of the buildings and pedestrian use areas, as well as improve the roads and transportation use of the North Base Support Area.

## 1.0 PURPOSE AND NEED

### 1.1 Introduction

The United States Air Force (USAF) and 1 Fighter Wing (FW) at Langley Air Force Base (AFB), Virginia propose to address the limited information assurance posture and the inability to operate and maintain the critical Command and Control (C2) communication assets to meet current and future Air Force mission requirements at Langley AFB by constructing a Consolidated Communications Facility in the northern part of the base. This EA has been prepared to identify and evaluate the potential environmental impacts associated with the proposed action and alternatives in compliance with the following:

- National Environmental Policy Act (NEPA) (Public Law 91-190, 42 United States Code 4321 *et seq.*) as amended in 1975 by Public Law 94-52 and Public Law 94-83
- Council on Environmental Quality (CEQ) regulations, 40 Code of Federal Regulations (CFR) 1500-1508
- Air Force Instruction 32-7061, *The Environmental Impact Analysis Process*, 32 CFR 989, which implements Section 102(2) of the National Environmental Policy Act
- Coastal Zone Management Act (CZMA), 15 CFR Part 930, subpart C, sections 930.30 through 930.46

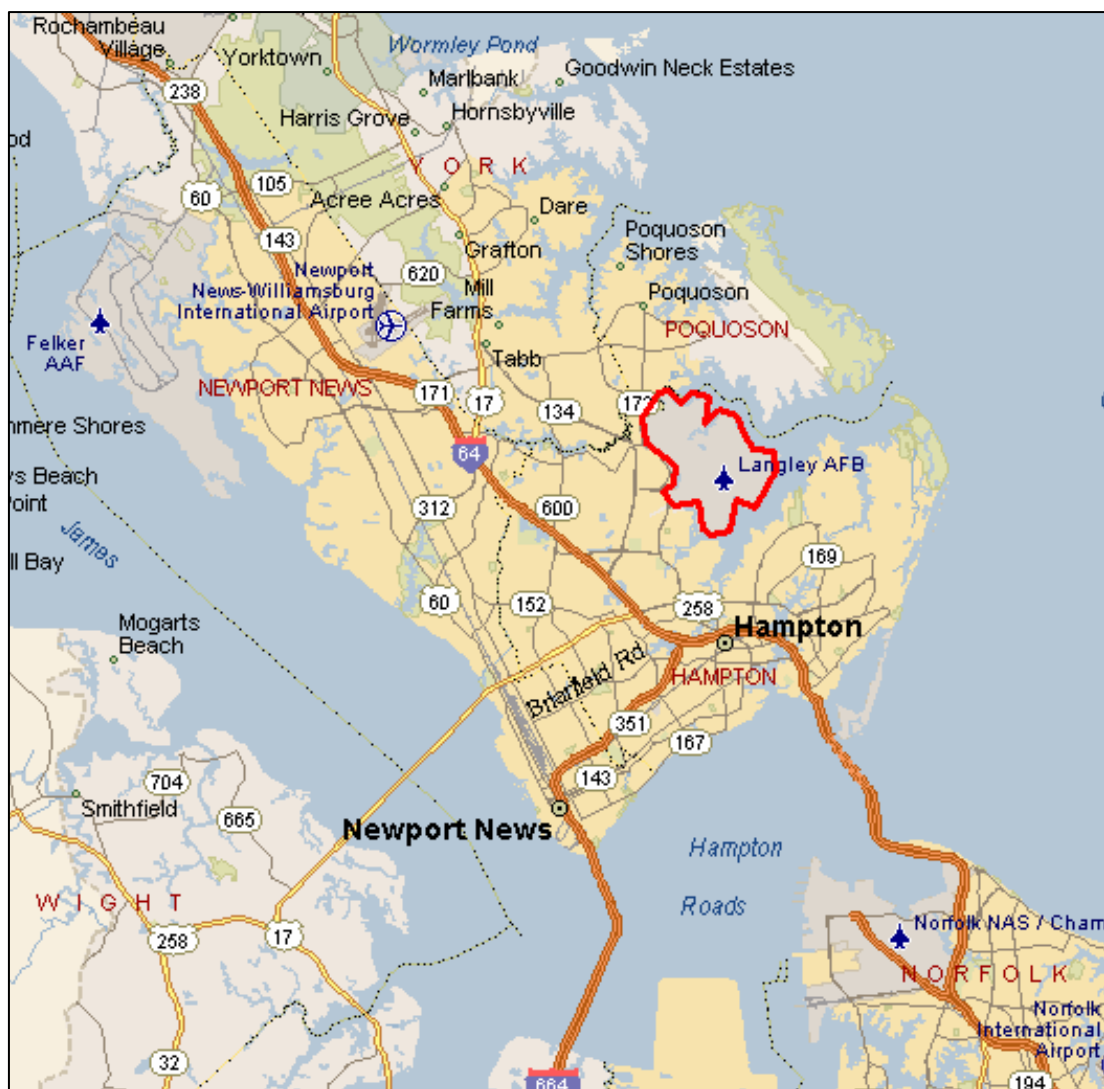
### 1.2 Background

Langley AFB, Virginia is located approximately 120 miles south of Washington, D.C., near the south end of the lower Virginia Peninsula on the Back River, a tributary of the Chesapeake Bay. The base is situated in the Hampton Roads Standard Metropolitan Statistical Area (SMSA), in the city of Hampton, Virginia. Other cities in the area include Newport News, Poquoson, Norfolk, and Portsmouth. The main base occupies 2,883 acres between the Northwest and Southwest Branches of the Back River. Figure 1.2-1 provides a map of Langley AFB.

Headquarters Air Combat Command (HQ ACC) is situated at Langley AFB, the home of the 1 FW. HQ ACC is one of nine major commands in the USAF and is responsible for organizing, equipping, training, and maintaining combat-ready forces at the highest level of readiness. Langley AFB's primary mission is to provide air operational support to a broad spectrum of aircraft in both peacetime and combat environments.

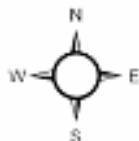
In 2004, the F/A-22 Raptor was phased in to replace the F-15C Eagle as the primary mission aircraft. General goals of the base are to sustain the resources and relationships deemed appropriate to pursue national interests, and provide for the command/control/communications necessary to execute the missions of the USAF, HQ ACC, and the 1 FW.

Figure 1.2-1: Location of Langley AFB

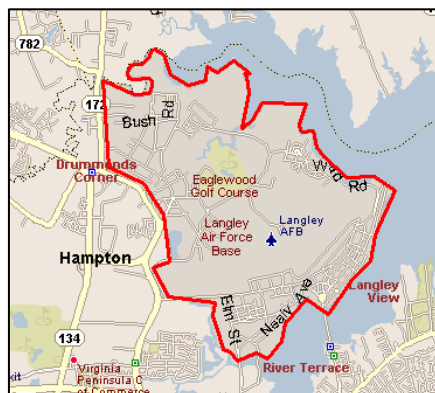


### Legend

Langley AFB perimeter



Maps adapted from Microsoft's Streets and Trips, 2001.





### **1.3 Purpose and Need**

The purpose of this proposal is to address the limited information assurance posture and the inability to operate and maintain Langley's mission critical C2 communications assets to meet the current and future Air Force mission requirements at Langley AFB. The proposal would provide sufficient and centralized operation/functional space for robust communications operations infrastructure and enhance the information assurance posture of the Air Force's mission critical C2 communications assets at Langley AFB.

The need is to correct or rectify the numerous information assurance vulnerabilities which exist due to substandard force protection for mission critical C2 assets, inadequate electrical power infrastructure, likelihood of flooding in the 100-year floodplain, and limited flexibility for future growth and expansion. Additionally, three facilities housing 53 personnel are located within current or proposed Explosive Quantity/Distance Arcs that pose a safety risk to mission critical equipment and personnel.

### **1.4 Regulatory Compliance**

The implementation of the proposed action would require the concurrence from several regulatory agencies, as listed in Table 1.4-1. A Section 404 permit from the U.S. Army Corps of Engineers, authorizing fill within wetlands or waters of the U.S. would not be required for the proposed action.

**Table 1.4-1  
Regulatory Compliance Requirements**

<b>Type of Permit or Regulatory Requirement</b>	<b>Compliance Requirement</b>	<b>Agency</b>
Clean Water Act (CWA)	Virginia Pollutant Discharge Elimination System Storm Water Permit	Commonwealth of Virginia Department of Environmental Quality
Endangered Species Act (ESA)	Required to consult on potential impacts of project implementation on federally listed or proposed threatened and endangered species	U.S. Fish and Wildlife Service
National Historic Preservation Act (NHPA)	Required to consult on potential adverse effects to properties eligible for listing on the National Register	Commonwealth of Virginia Department of Historical Resources
Virginia Coastal Resources Management Program (VCP) and Coastal Zone Management Act	Federal consistence determination for activities in coastal areas	Virginia Department of Environment Quality and Environmental Protection Agency
Virginia Erosion and Sediment Control Handbook	Regulations to control sediment erosion on construction sites	Virginia Department of Conservation and Recreation

## **1.5 Public and Agency Involvement**

In December 2003, the Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) process was initiated for the proposed construction. As part of this process, the Air Force contacted local, state, and federal agencies to inform them of the intent to prepare an EA for the construction of the proposed building. The coordination and consultation letters are included in Appendix A. Through this coordination, the various agencies and the public provided information regarding environmental issues that required addressing in the impact analysis.

The following agencies were contacted for information pertaining to their specific area of expertise and any other notable information that had not yet been presented: United States Fish and Wildlife Service, United States Army Corps of Engineers -- Norfolk District, Department of Environmental Quality -- Virginia State Clearinghouse, Virginia Department of Conservation and Recreation - Division of Natural Heritage, Virginia Department of Agricultural and Consumer Services - Endangered Species Coordination, Virginia Department of Game and Inland Fisheries, Virginia State Historic Preservation Office, Advisory Council on Historic Preservation, United States Environmental Protection Agency - Region 3.

The public comment period on the draft EA extended from April 4, 2005 to May 3, 2005. The draft EA was made available at the following libraries during that time: Hampton Public Library, Poquoson Public Library, York County Public Library, and Langley AFB Library. A Notice of Availability for the EA appeared in the Daily Press newspaper of Hampton Roads, VA. The final EA will be available in the previously mentioned libraries.

This page intentionally left blank.

## **2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

The proposed construction project is required to provide operational space for robust communications operations infrastructure and to enhance the information assurance posture of Langley's mission critical C2 communications assets. The following provides a detailed description of the Proposed Action and Alternative. The chapter also includes a discussion of the No Action Alternative, alternatives considered but eliminated, and a comparison of the environmental consequences of each action alternative.

### **2.1 Proposed Action**

The proposed action is to construct a new two-story 8,113 SM (87,284 SF) Consolidated Communications Facility with reinforced concrete floor slab and foundation including masonry walls and standing seam metal roof system. The project will include all new electrical, heating, ventilation, and air conditioning (HVAC), mechanical, communications, local area network (LAN), fire detection/suppression, and security alarm systems. Site improvements would include landscaping, constructing a parking lot, access pavements, and installation of a protective film on all windows as an Antiterrorism/Force Protection (AT/FP) measure.

The functional areas for the first floor of the facility would include: Customer Service area, offices, conference rooms, classrooms, auditorium, men's and women's bathrooms, break rooms, and storage areas. The operational areas for the second floor would include communication core services (server farm), Network Operations Center (NOC), a Sensitive Compartmentalized Information Facility (SCIF), Communications Security (COMSEC) Vault, and network and telephone switching equipment rooms. Special requirements include installation of separate backup generators for NIPRNet, SIPRNet, and telephone communications equipment. Locating critical operational communication nodes on the second floor would eliminate the potential for catastrophic failure due to being within the 100-year floodplain.

Currently, the 1 CS functions are located in seven separate and geographically dispersed facilities (F. 768/775/788/1025/1388/1389/1391) that are as much as 70 years old and have never undergone a planned and complete renovation. A new consolidated facility would centralize the separate buildings that currently house 1 CS functions into a single location in the North Base Support Area, creating a setting that would be more convenient and would provide the needed storage space that is currently not available. The following facilities would be relocated to the new Consolidated Communications Facility:

- #768: COMSEC vault, Engineering and associated storage area, SCIF, NOC, Stan/Eval, Mobility/Readiness, Material Control, Server farm, SCB switch area, Core services, DigiCom, Network Control Center, Info Assurance, Network Management and Information Protection and Flight headquarters administration/office areas, classrooms/training areas, Customer Service Circuit Actions, Theater Battle Management Core Systems Office
- #775: Automated Data Processing Equipment and CITS storage, Forms and Pubs, BITC Records management, WGM Training, Internet/Intranet, Plans and Programs, LMR, Orderly Room, Squadron and Flight administration areas, classrooms, training areas, customer service, Heritage area
- #788: Photo studio, dressing rooms, lab space, customer service area
- #1025: Metrological Navigation, METNAV (other current functions remain in Building 1025)
- #1388: Telephone systems
- #1389: Ground-Air Transmitter-Receiver/Ground Radio
- #1391: Communications Facility, which is utilized as a cable and antenna storage building

The Proposed Action would involve the construction of the proposed Consolidated Communication Facility in the North Base Support Area, in the open field surrounded by Smythe Road, North Roma Road, and Weyland Road, as well as the associated parking lot. The building would intrude on to Smythe and Weyland Roads, which would require them to be redirected. This Action would include all of the provision of the new building presented in Section 2.1 and would provide the operational space for robust communications operations infrastructure and enhance the information assurance posture of Langley's mission critical C2 communications assets. This new building would be more convenient and would provide the needed storage space that currently is not available. It would also meet the goals of the North Base Support Area Development Plan (ADP), which include:

- Co-locate as many 1 CS and 1 CS-related functions as possible into a consolidated, pedestrian-oriented campus environment.
- Ensure the "walkability" of the new North Base Support Area campus.
- Provide appropriate force protection for new and renovated facilities.
- Provide adequate parking for privately owned and military vehicles and improve vehicular access and circulation.
- Enhance the historic, low density, character of the area.
- Provide quality landscaping, signage, lighting, and other site amenities to create a professional-appearing complex.

The North Base Support ADP also states that the 1st CS leadership desires to consolidate 1 CS (the server farm), some related HQ ACC (the Network Operations Center) and Air National Guard functions to the area, freeing Buildings 768 and 775 for reuse by 1st FW and/or HQ ACC organizations. Also, the ADP is suitable for an administrative and/or light industrial/service complex, with no major land use incompatibilities (Langley AFB 2000b). The Proposed Action is compatible with all of the above criteria. Figure 2.3-1 provides a map showing the location of the new communications facility on Langley AFB and the location of the existing buildings that would be relocated in relation to the rest of Langley AFB. Figures 2.3-2 and 2.3-3 show a more detailed map of the location of the proposed project area within Langley AFB.

## **2.2 Alternative A**

This Alternative would involve the construction of the proposed Consolidated Communication Facility south of Weyland Road and west of South Roma Road on the existing ball fields and parking lot west of Building 801. Alternative A would include all of the provisions of the new building presented in Section 2.1 and would provide the same operational/functional space as described in the Proposed Action. This new building would be more convenient and would provide the needed storage space that currently is not available. This Alternative would not be located in the North Base Support Area and therefore would neither be involved with nor meet the goals of the North Base Support ADP. This Alternative would be constructed on an existing parking lot and recreational land, resulting in the relocation of the parking lot and the relocation of the ball fields to the horse pasture. Figure 2.3-1 provides a map showing the Alternative A location of the new communications facility on Langley AFB and the location of the existing buildings that

would be relocated in relation to the rest of Langley AFB. Figure 2.3-3 shows a more detailed map of the location of the proposed Alternative within Langley AFB.



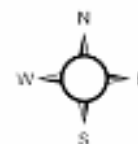
Figure 2.3-1: Location of the Proposed Action and Alternative A for the Consolidated Communication Facility and Existing Facilities that would be relocated to Proposed New Facility



#### Legend

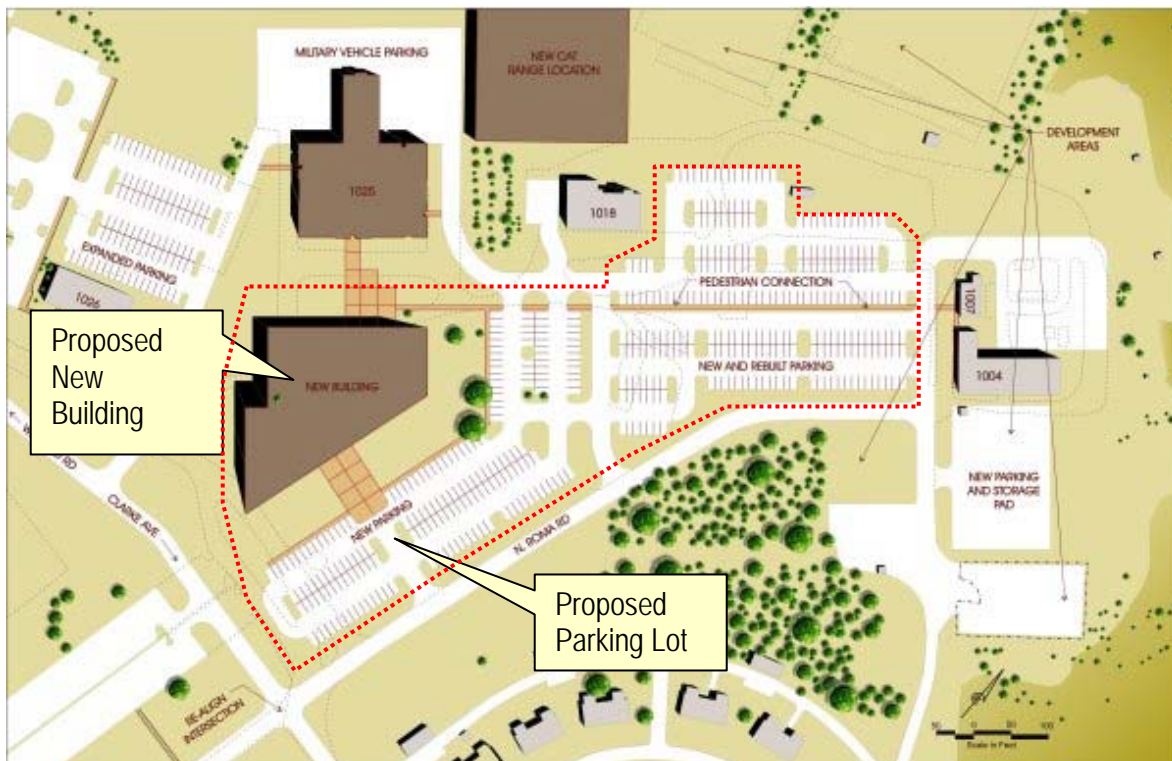
- Langley AFB base perimeter
- Location of Proposed Action
- Location of Alternative A

- 768 Existing Buildings that would be relocated to the new facility



Map adapted from Microsoft's Streets and Trips, 2001.

Figure 2.3-2: Location of Proposed Project Area Including Proposed Building and Parking Lot in the North Base Support Area

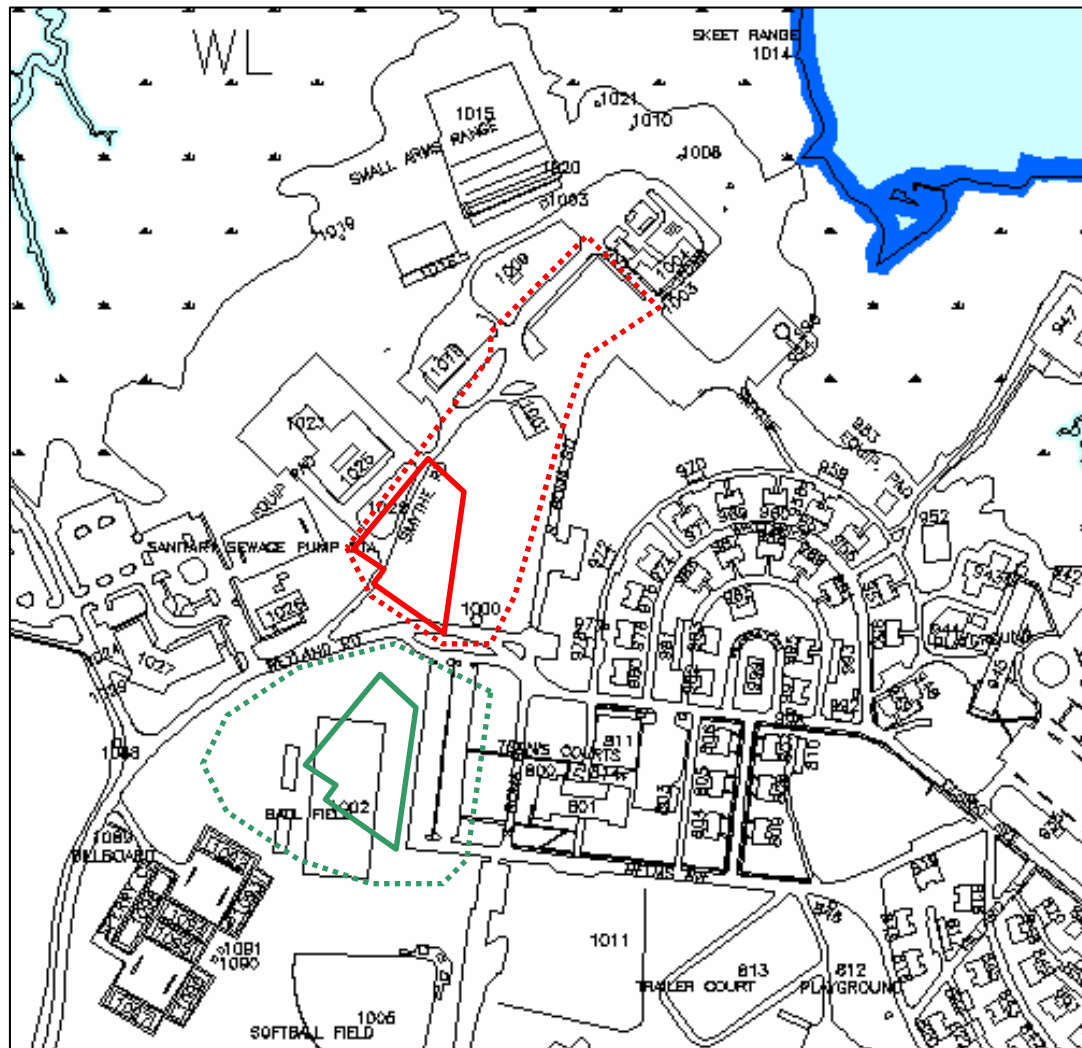


### Legend







 Location of Proposed Project Area, Including Parking Lot

Map adapted from Langley AFB, 2000a.

**Figure 2.3-3: Location of Proposed Action and Alternative A for the Consolidated Communication Facility within Langley AFB**



### Legend

-  Langley AFB Perimeter  
 Location of Proposed Project Area, Including Parking Lot  
 Location of Proposed Building
-  Location of Alternative A Project Area, Including Parking Lot  
 Location of Alternative A Building  
**WL** Wetlands
- 

Map adapted from Langley AFB, 2000a.

## **2.3 No Action Alternative**

Under the No Action Alternative, the proposed Consolidated Communications Facility would not be constructed. The communications activities would continue to be conducted in the existing facilities that are not in one location, and in buildings that are substandard in force protection, inadequate in electrical power infrastructure, limited in future growth and expansion, and subject to flooding due to their location in the 100-year floodplain. Some existing facilities are also located within current or proposed Explosive Quantity/Distance Arcs that pose a safety risk to mission critical equipment and personnel.

## **2.4 Alternatives Considered but not Carried Forward**

The major objectives in the siting of the Consolidated Communications Facility are to:

- Provide all communications personnel and equipment in one place.
- Provide for force protection.
- Provide for adequate electrical power infrastructure.
- Provide for future growth and expansion.
- Provide for a safe and healthy environment.
- Provide for accomplishing the communications mission.

The following are the proposed Alternatives to new construction and why they were not carried forward.

Proposed Alternative 1: Consolidate 1 CS into an existing facility on Base. This was not carried forward as Community Planning confirmed that no other facility on base was available.

Proposed Alternative 2: Consolidate 1 CS to a renovated facility on base. This was not carried forward as no facility on base was found suitable. The existing facility, 1025, could not be renovated or expanded because it is against AF programming rules to construct an addition greater than 25% in size to the existing structure. Thus, expanding 1025 would not meet the mission requirement for 87,000 SF of space. A preliminary analysis performed by CECP, form 1391, indicates this option was investigated and discarded as not feasible.

Proposed Alternative 3: Move 1 CS to an off-base location. This was not carried forward because: 1) it is contrary to current AF philosophy which aims to centralize mission essential units onto the main installation, 2) would not provide for AT/FP measures consistent with current DoD guidelines, and 3) could hinder future growth and expansion, as leased space may not be adequate for future growth necessitating the need to move to another leased property.

## 2.5 Comparison of Alternatives

Table 2.6-1 summarizes the potential environmental impacts of the proposed action and alternatives, based on the detailed impact analyses shown in Chapter 4.0. No significant impacts are anticipated as a result of the implementation of the proposed action. Coordination has been made with the Virginia Department of Environmental Quality for an environmental impact review.

Table 2.6-1  
Summary of Potential Environmental Impacts

Resource	Proposed Action	Alternative A	No Action Alternative
Air Quality	-	-	0
Water Resources	-	-	0
Biological Resources	-	-	0
Cultural Resources	+	+	0
Land Use	+	-	0
Hazardous Waste Management and Environmental Restoration	0	0	0
Socioeconomics and Environmental Justice	+	+	0
Noise	-	-	0
Safety and Occupational Health	-	-	0
- = Negative, but not significant impact + = Positive/beneficial impact 0 = No Change			

## **3.0 AFFECTED ENVIRONMENT**

This chapter describes the existing conditions that comprise the physical and natural environment within Langley AFB and the surrounding region of influence. Descriptions of the affected environment provide a framework for understanding the potential direct, indirect, and cumulative effects of each of the Proposed Action and Alternative A.

### **3.1 Air Quality**

Air quality defines the existing conditions that influence the quality of air and concentrations of various pollutants. The air quality at Langley AFB is defined with respect to the standards of the Clean Air Act's (CAA) National Ambient Air Quality Standards (NAAQS) to monitor and reduce the pollutants that are harmful to public health and welfare. The quality of the air is determined by comparing ambient air pollutant levels with the appropriate NAAQS value for each pollutant. NAAQS exist for six criteria pollutants: ground level ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub>) and (PM<sub>2.5</sub>), carbon monoxide (CO), sulfur oxides (SO<sub>x</sub>), lead, and nitrogen oxides (NO<sub>x</sub>). The Environmental Protection Agency (EPA) defines the standard levels as those levels that are necessary to protect public health. Virginia has adopted the NAAQS in the Virginia Administrative Code (VAC) 9 VAC 5 Chapter 30 (VDEQ 2004). See Table 3.1-1 for the standard values of each criteria pollutant.

**Table 3.1-1  
National Ambient Air Quality Standards**

<b>Pollutant</b>	<b>Standard Value</b>
<b>Carbon Monoxide (CO)</b>	
8-hour Average	9 ppm (10 mg/m <sup>3</sup> )
1-hour Average	35 ppm (40 mg/m <sup>3</sup> )
<b>Lead (Pb)</b>	
Quarterly Average	1.5 µg/m <sup>3</sup>
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>	
Annual Arithmetic Mean	0.053 ppm (100 µg/m <sup>3</sup> )
<b>Ozone (O<sub>3</sub>)</b>	
1-hour Average	0.12 ppm (235 µg/m <sup>3</sup> )
8-hour Average	0.08 ppm (157 µg/m <sup>3</sup> )
<b>Particulate Matter (PM<sub>10</sub>)</b>	
Annual Arithmetic Mean	50 µg/m <sup>3</sup>
24-hour Average	150 µg/m <sup>3</sup>
<b>Particulate Matter (PM<sub>2.5</sub>)</b>	
Annual Arithmetic Mean	15 µg/m <sup>3</sup>
24-hour Average	65 µg/m <sup>3</sup>
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>	
Annual Arithmetic Mean	0.03 ppm (80 µg/m <sup>3</sup> )
24-hour Average	0.14 ppm (365 µg/m <sup>3</sup> )

(EPA 2004a)

Langley AFB is located within the Hampton Roads Intrastate Air Quality Control Region (AQCR) 223. The Hampton Roads area includes the surrounding cities of Hampton and Suffolk and the counties of Isle of Wight, James City, Southampton, and York. The emissions in this area originate from various industrial sources, several military and commercial airfields, and a large population. The air quality in the region is classified as in attainment for all the criteria pollutants. However, the ozone level in the Hampton Roads AQCR was designated a marginal nonattainment area for the 8-hour ozone standard (EPA 2004c).

The de minimis thresholds for Langley AFB as an ozone marginal nonattainment area are 100 tons per year of NO<sub>x</sub> and 50 tons per year of volatile organic compounds (VOCs). Langley AFB has received a Synthetic Minor Operating Permit from the Commonwealth of Virginia. The base operates in accordance with a New Source Performance Standard Permit, registration number 60059, issued by the VDEQ on February 4, 2004. This permit states that total emissions from all permitted stationary sources shall not

exceed certain threshold limits, including 98 tons per year of NO<sub>x</sub> and 32.9 tons per year of VOCs (VDEQ 2004).

## **3.2 Water Resources**

The water resources on Langley AFB addressed in this EA include the watershed, floodplain, and coastal zone.

### **3.2.1 Watershed**

Langley AFB is located on a flat low lying peninsula, with elevations between five and eleven feet mean sea level (MSL), between the Northwest Branch and Southwest Branch of the Back River which flows into the Chesapeake Bay. The proposed location and entire base are located within the Chesapeake Bay watershed.

Because of its housing, administration, landscape maintenance, and Air Force airfield operations, Langley AFB's storm water runoff contains pollutants of a typical urban area including oil, grease, and petroleum products. The levels of each potential water pollutant fall within the acceptable limits of Langley AFB's Virginia Pollutant Discharge Permit, No. VA0083194. The permit requires quarterly sampling and management of runoff, sediment, and erosion control. Stormwater drainage collects precipitation and is carried to 55 outfalls on the base, two of which are inspected daily and two others weekly. The stormwater drainage discharges into the Back River and its tributaries, including Brown's Creek, Tide Mill Creek, Kiln Creek, and Tabbs Creek. The base has a Storm Water Pollution Prevention Plan (SWPPP) as a requirement of its VPDES permit.

Because of the flat relief of the base, standing water can accumulate during heavy precipitation. The standing water is allowed to sink into the ground. If there are blocked storm drains, they are cleared or replaced.

### **3.2.2 Floodplain**

Floodplains are pieces of relatively level land bordering a stream or river subject to flooding. A 100-year floodplain is an area that can be expected to flood once in every 100 years (EPA 2003). The 100-year flood elevation is at 8.5 feet MSL on Langley AFB. Most of Langley AFB is located within the 100-year



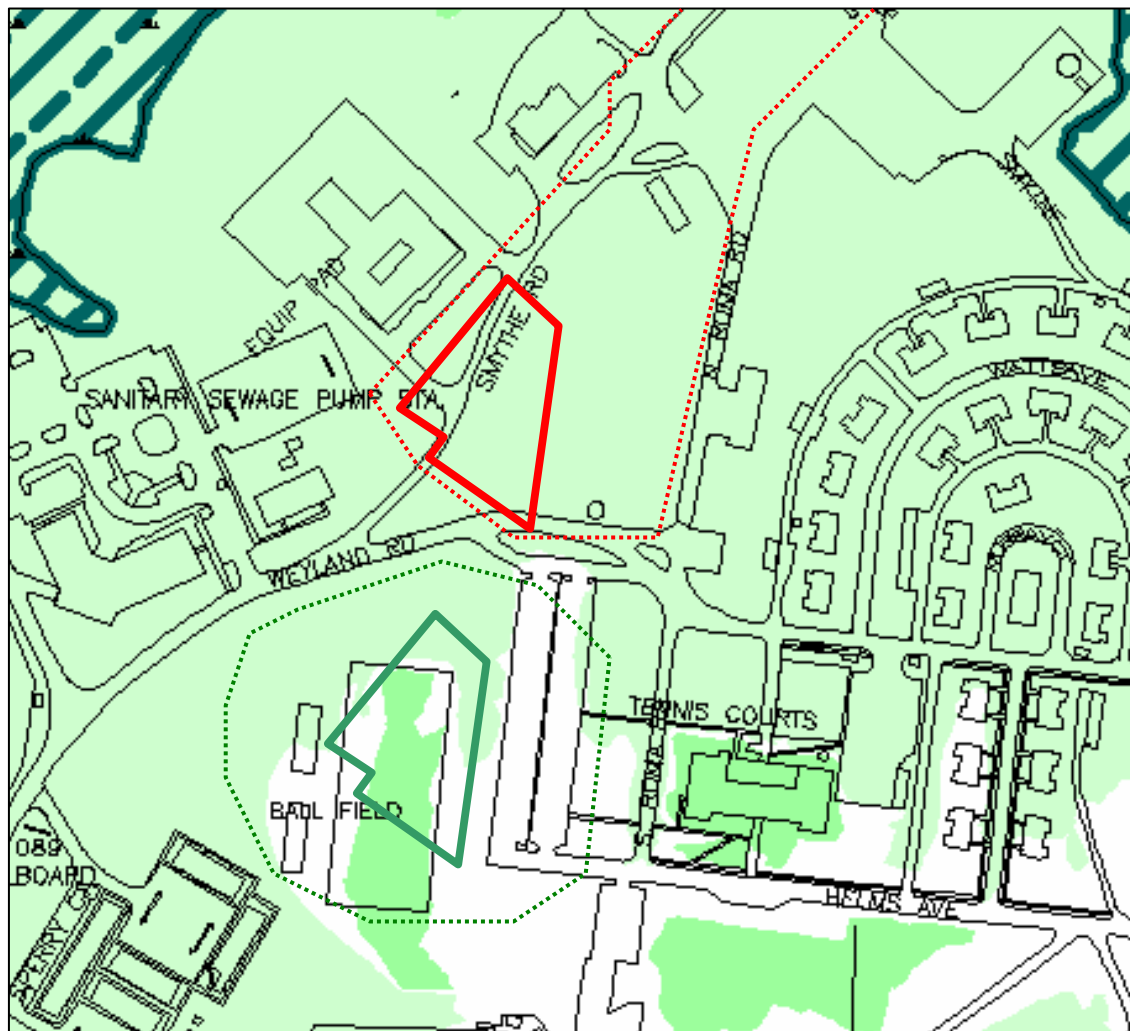
floodplain associated with the Chesapeake Bay and Back River. The flooding here can be severe during major storms or hurricanes.

The Proposed Action and Alternative A for the construction site for the Consolidated Communications Facility are located in the 100-year floodplain. The Proposed Action is located entirely within the 100-year floodplain while Alternative A is only partially located within the floodplain. There has been prior development and construction in the surrounding area. Figure 3.2.2-1 shows the areas around the Proposed Action and Alternative A construction locations that are part of the 50 and 100-year floodplain.

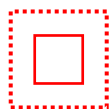
### **3.2.3 Coastal Zone**

Coastal zones are lands and waters adjacent to the coast that exert an influence on the uses of the sea and its ecology, or whose uses and ecology are affected by the sea (EPA 2004b). Langley AFB is located in a Coastal Zone area and all development must be conducted in accordance with the VCRMP. The VCRMP complies with the EPA's CZMA of 1972. Proposed activities in Virginia's coastal resource management areas are subject to undergo a consistency determination as part of the Federal Consistency Regulations for activities in coastal areas. See section 3.5 Land Use for details pertaining to the Federal Consistency Regulations.

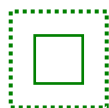
Figure 3.2.2-1: Proposed Action and Alternative A Proposed Construction Locations in Relation to the 100-Year Floodplain and Wetlands



### Legend



Location of Proposed Project Area and Proposed Building



Location of Alternative A Project Area and Alternative Building



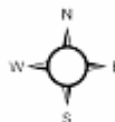
Wetlands



100-Year Floodplain



50-Year Floodplain



Map adapted from Langley AFB, 2000a.

### **3.3 Biological Resources**

The biological resources on Langley AFB consist of the natural plant and animal species and their habitats and relation to the base. Recognition and preservation of the biological resources on Langley AFB provides environmental value as well as recreational and aesthetic value. The resources discussed for this EA include terrestrial communities, wetlands and freshwater aquatic communities, and threatened, endangered and special status species/communities.

#### **3.3.1 Terrestrial Communities**

The location of Langley AFB provides habitat to a wide variety of terrestrial habitats common to the Chesapeake Bay region. Wildlife on base consists of a variety of species, including game and furbearing species, small mammals, waterfowl, songbirds, raptors, amphibians, reptiles, and fish. Approximately 80 percent of Langley AFB's grounds are developed or urbanized; the only natural areas are portions of the tidal wetlands along the shoreline. The location of the proposed construction is currently developed and does not provide optimal feeding and breeding habitat for mammals and reptiles. Although, the area surrounding the proposed location has some wooded areas that provides habitat for wildlife.

Due to the variety of bird species on Langley AFB, both raptors and non-predator, resident and migratory, a conflict exists because birds and aircraft share the same air space. Langley AFB has developed a Bird-Wildlife Aircraft Strike Hazard (BASH) Plan to manage the issue of the numerous bird-aircraft strikes. The BASH Plan identifies vegetation management areas and water bodies that attract birds. The base's foremost bird strike problem is from gulls foraging on and around the airfield (Langley AFB 1998b).

#### **3.3.2 Wetlands and Freshwater Aquatic Communities**

Wetlands are defined in 33 CFR 328.3 as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Langley AFB contains 651.90 acres of jurisdictional wetlands classified by the U.S. Army Corps of Engineers (Langley AFB 1998b). Of the 651.90 acres, 461.87 acres are non-freshwater estuarine wetlands associated with the salt and freshwater marshes, particularly along the Northwest and Southwest Branches of Back River. Table 3.3.2-1 shows the various wetlands on Langley AFB and their acreage (Langley AFB 1998b).

**Table 3.3.2-1**  
**Langley AFB Wetland Types and Acreage**

<b>Wetland Type</b>	<b>Acreage</b>
Estuarine Unconsolidated Bottom	72.76
Estuarine Emergent	343.78
Estuarine Scrub/Shrub	39.00
Estuarine Unconsolidated Shoreline	6.33
Palustrine Emergent	76.22
Palustrine Forested	97.33
Palustrine Scrub/Shrub	16.43

(Langley AFB 1998b)

There are no wetlands on the property of the Proposed Action or Alternative A for the Consolidated Communications Facility. The closest wetlands exist to the northwest beyond Buildings 1023, 1025 and the Sanitary Sewage Pump Station, approximately 700 to 1,000 feet away from the location for the Proposed Action and over 1,000 feet from Alternative A. There are also wetlands to the north and northeast along the shoreline, past Smythe Road. Figure 3.2.2-1 shows the wetlands around the proposed construction locations.

Langley AFB is located in the Chesapeake Bay preservation area's Resource Management Area, which includes lands at or near the shoreline that have water quality value due to ecological or biological processes that they sustain. Due to the nature of the area, any project constructed within these preservation areas must comply with 9 VAC 10-20, which is designed to determine the ecological and geographical extent of the Chesapeake Bay Preservation Area and to grant, deny, or modify requests to rezone, subdivide, or to use and develop land in these areas (Virginia Regulatory Town Hall 2004).

### **3.3.3 Threatened, Endangered, and Special Status Species/Communities**

Threatened or endangered refers to a species that has been federally recognized as threatened or endangered by the ESA of 1973 or has been proposed threatened or endangered. There are twelve federally listed, proposed, candidate and species of concern within a 50-mile radius of Langley AFB. They are listed in Table 3.3.3-1 (Langley AFB 1998b). Of the federally listed species, bald eagle foraging can occur to a limited extent within the creeks and marshes of the base with habitat suitable for nesting or roosting on the northern side of the base in the loblolly pines. Four of the federally listed species have been recorded in proximity to the base. These include the barking treefrog, Mabee's salamander, piping

plover, and the northeast beach tiger beetle (Langley AFB 1998b). The northeastern beach tiger beetle has no record of occurrence on the base. The piping plover is associated with sandy beaches which are not found on Langley AFB. Any action that would cause incidental harm or potential negative impacts to threatened or endangered species must be coordinated with Langley AFB, including coordination with pest management, BASH plan, land management, and outdoor recreation.

The canebrake rattlesnake (*Crotalus horridus*) is a state endangered species and has been documented approximately 1.75 miles from the proposed construction location. Any action at the proposed location would require coordination with the Virginia Department of Game and Inland Fisheries concerning potential impacts to this species. The federal species of concern, northern diamond-back terrapin (*Malaclemys terrapin terrapin*) and the following state special concern species, not recognized in Table 3.3.3-1, have been documented within approximately two miles of the proposed location; Forster's tern (*Sterna forsteri*), Caspian tern (*Sterna caspia*), northern harrier (*Circus cyaneus*), saltmarsh sharp-tailed sparrow (*Ammodramus caudacutus*), and the yellow-crowned night heron (*Nyctanassa violacea*). Federal species of concern and state special concern species are not legal designations and do not require coordination (VA Department of Game and Inland Fisheries 2004).

**Table 3.3.3-1**  
**Federally Listed, Proposed and Candidate**  
**Species of Concern Within a 50-mile Radius of Langley AFB**

Common Name	Scientific Name	Status	
		Federal	State
Vertebrate			
Mabee's salamander	<i>Ambystoma mabeei</i>		T
Birds			
Piping plover	<i>Charadrius melodius</i>	LT	T
Least Tern	<i>Sterna antillarum</i>		C
Bald eagle	<i>Haliaeetus leucocephalus</i>	LT	E
Great egret	<i>Asmerodius albus</i>		C
Peregrine Falcon	<i>Falco peregrinus</i>	LE (S/A)	E
American Peregrine Falcon	<i>Falco peregrinus anatum</i>	LE	T
Invertebrates			
Northeastern beach tiger beetle	<i>Cincidela dorsalis dorsalis</i>	LT	C
Plants			
Pondspice	<i>Litsea aestivalis</i>	SOC	
Harper's fimbristylis	<i>Filmbristylis perpusilla</i>	SOC	
Eastern bloodleaf	<i>Iresines rhizomatosa</i>		G5T3
Virginia least trillium	<i>Trillium pusillum</i> var. <i>virginianum</i>		G3T2

(E – Endangered; LE – Listed Endangered; LT – Listed Threatened; SC – Species of Concern; S/A – due to similarity of appearance to a Federally listed species; SOC – Species of Concern; C – Candidate; G\_T\_ - signifies the rank of a subspecies or variety)

(Langley AFB 1998b)

### 3.4 Cultural Resources

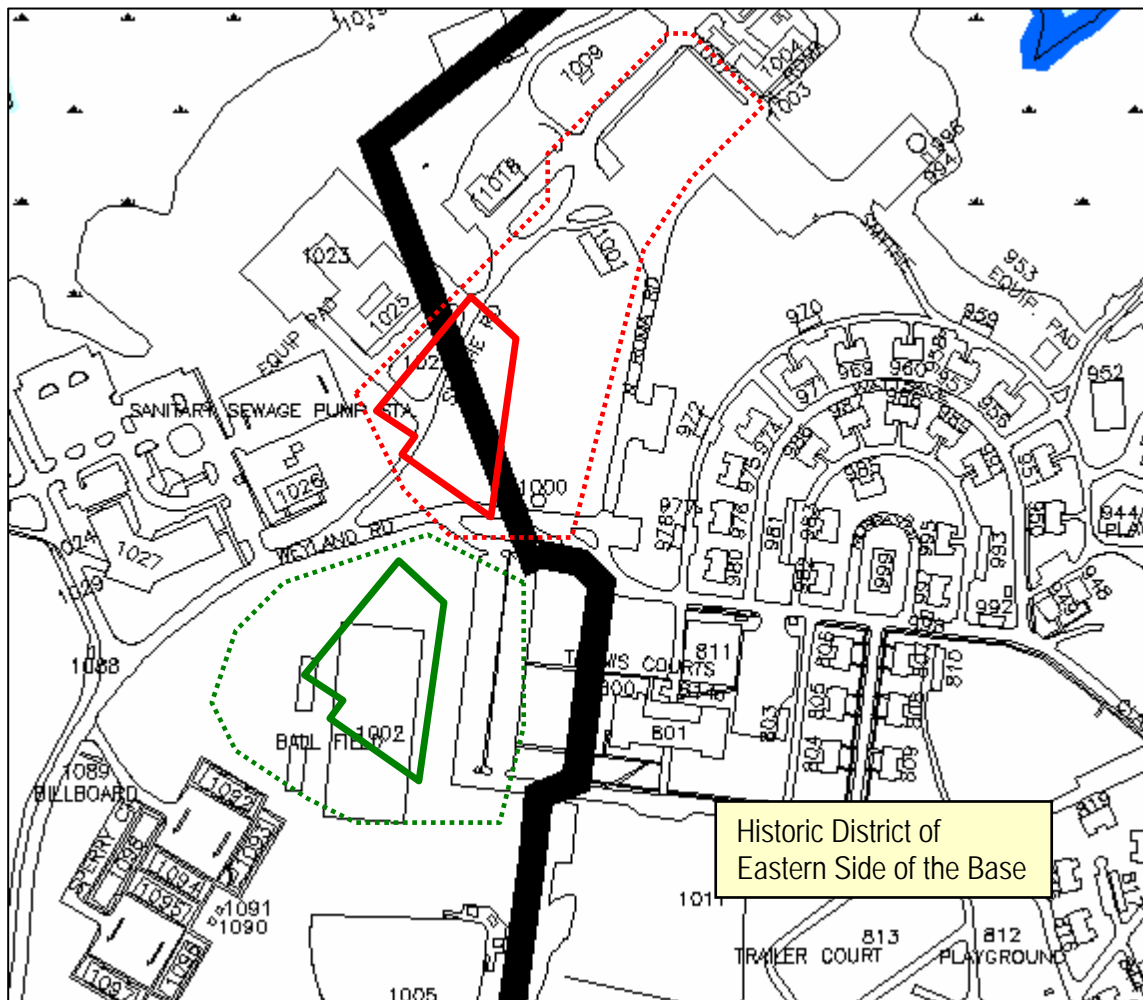
The cultural resources described in this section include any culturally, historically, or archaeologically significant sites on Langley AFB and their relationship to the construction of the Consolidated Communications Facility. Langley AFB has various archeological sites and historic buildings on base. The eastern portion of the base is eligible for the National Register of Historic Places as the Langley Field Historical District.

The proposed location for construction of the Proposed Action is partially located in the Langley Field Historical District, while Alternative A is outside of the Historical District. Figure 3.4-1 shows the boundary line of the historic district and its relation to the proposed construction sites. The construction locations are also located in proximity to historical Buildings 1001, 1004, 1018, and Water Tower 1000. According to the North Base Support ADP, Building 1001 is now vacant and in very poor condition. According to Langley

AFB's Community Planner, Laura Baie, consultation with the State Historic Preservation Office (SHPO) for the demolition of this building is nearing completion. There are also goals to rehabilitate the exterior shells of historic Buildings 1004, a generator gas plant condemned due to asbestos and lead-based paint contamination and 1007, a compressor gas plant. Both buildings would be renovated to provide for their long-term adaptive use as unconditioned storage for a 1 FW facility. The construction of this new facility would require the demolition of the water tower, Building 1000. The removal of the water tower would affect the historical district; however, due to its deteriorated condition, it is no longer in use. Langley AFB may be able to work with the SHPO, as they have in the past, to mitigate the demolition of other historical towers on base. Any construction or other activities that would compromise or encroach on any of the historic locations must comply with the procedures of the Langley AFB Cultural Resource Management Plan, 2004. The Base Cultural Resources Manager and the 1st Civil Engineer Squadron manage this process.



Any proposed development or construction on Langley AFB would be required to be compliant with the base's Architectural, Landscape, Interior Design and Engineering Compatibility Standards. These standards are in place to provide a framework for aesthetically coordinated base improvements. The guidelines follow HQ ACC architectural design policy which requires compatibility over personal style and provide designs that establish harmony at the base (Langley AFB 1998a).

**Figure 3.4-1: Proposed Action and Alternative A Proposed Construction Locations in Relation to the Historic District of the East Side of the Base**



Historic District of  
Eastern Side of the Base

### Legend

-  Location of Proposed Project Area and Proposed Building
-  Location of Alternative A Project Area and Alternative Building

 Boundary for Historic District



Map adapted from Langley AFB, 2000a.



### 3.5 Land Use

Langley AFB covers 2,883 acres, with land uses consisting of administration, airfield, aircraft operations and maintenance, airfield pavements, community commercial and service, accompanied and unaccompanied housing, industrial, medical, open space, outdoor recreation, and water (Langley AFB 2000). The location for the Proposed Action, between Weyland Road, Clark Avenue, and North Roma Road, is classified as open space, surrounded by industrial, outdoor recreation, and housing to the east. The proposed location for Alternative A, south of Weyland Road and west of South Roma Road, is classified as Outdoor Recreation land use. There is a small strip of open space to the east of Roma Road and open space to the northwest beyond Buildings 1023 and 1025. Figure 3.5-1 shows the current land use of Langley AFB surrounding the proposed location.

The Proposed Action and Alternative A would be constructed in a coastal zone management area. The CZMA and the VCP require federal activities which are reasonably likely to affect any land or water use or natural resources of Virginia's coastal resource management areas to undergo a consistency determination as part of the Federal Consistency Regulations for activities in coastal areas, 15 CFR Part 930, subpart C, sections 930.30 through 930.46. The consistency determination involves an analysis of the proposed activities and its consistency with the enforceable programs of the VCP. The enforceable policies of the VCP are:

- *Fisheries Management.* The program stresses the conservation and enhancement of finfish and shellfish resources and the promotion of commercial and recreational fisheries to maximize food production and recreational opportunities. This program is administered by the Marine Resources Commission (Code of Virginia § 28.2-200 thru 28.2-713) and the Department of Game and Inland Fisheries (Code of Virginia § 29.1-100 thru 29.1-570). The State Tributyltin Regulatory Program has been added to the Fisheries Management program. The General Assembly amended the Virginia Pesticide Use and Application Act as it related to the possession, sale, or use of marine antifoulant paints containing Tributyltin. The use of Tributyltin in boat paint constitutes a serious threat to important marine animal species. The Tributyltin program monitors boating activities and boat painting activities to ensure compliance with Tributyltin regulations promulgated pursuant to the amendment. The Marine Resources Commission, the Department of Game and Inland

Fisheries, and Virginia Department of Agriculture Services share enforcement responsibilities (Code of Virginia § 3.1-249.59 thru 3.1-249.62).

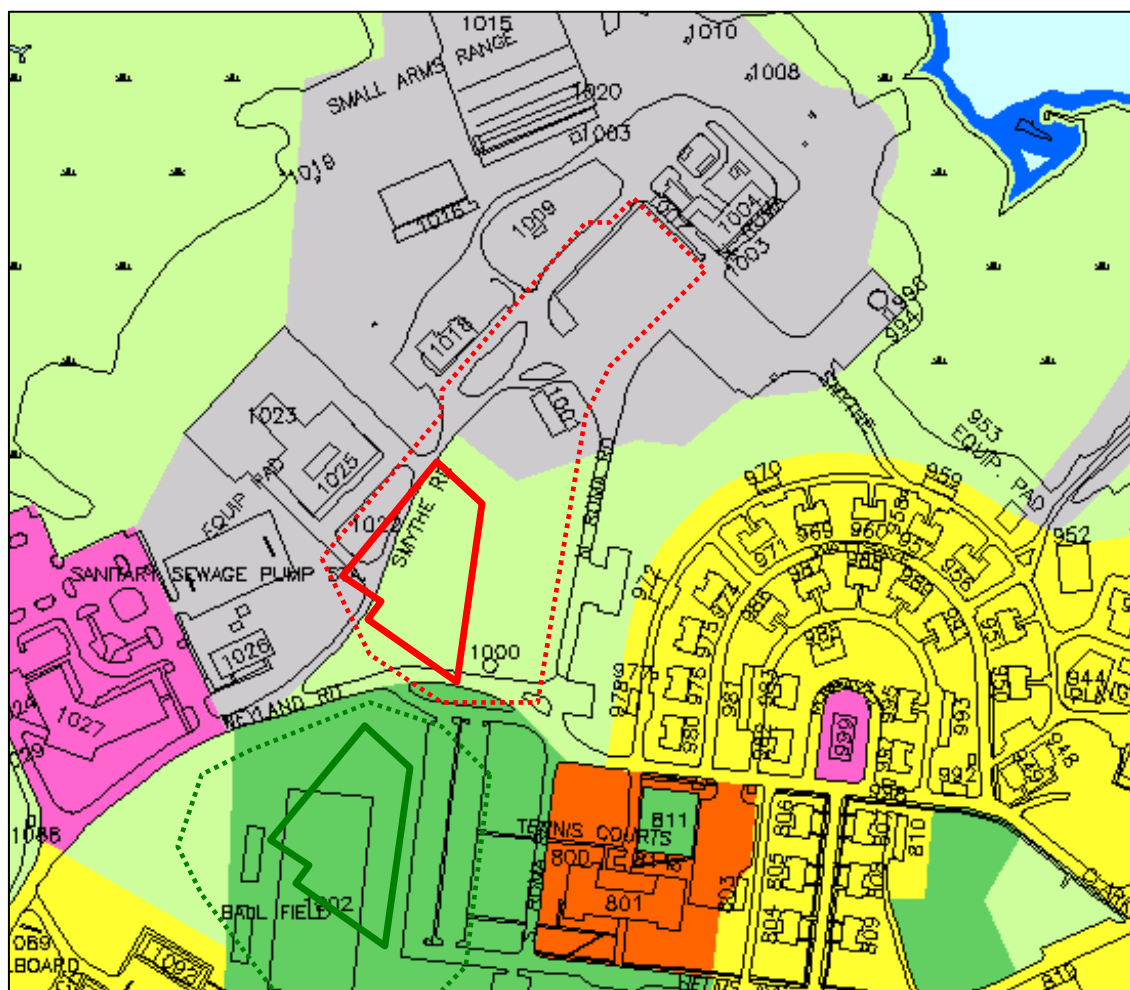
- *Subaqueous Lands Management.* The management program for subaqueous lands establishes conditions for granting or denying permits to use state-owned bottomlands based on considerations of potential effects on marine and fisheries resources, wetlands, adjacent or nearby properties, anticipated public and private benefits, and water quality standards established by the Department of Environmental Quality, Water Division. The program is administered by the Marine Resources Commission (Code of Virginia § 28.2-1200 thru 28.2-1213).
- *Wetlands Management.* The purpose of the wetlands management program is to preserve tidal wetlands, prevent their destruction, and accommodate economic development in a manner consistent with wetlands preservation.
  - (i) The tidal wetlands program is administered by the Marine Resources Commission (Code of Virginia § 28.2-1301 thru § 28.2-1320).
  - (ii) The Virginia Water Protection Permit program administered by the Department of Environmental Quality includes protection of wetlands, both tidal and non-tidal. This program is authorized by Code of Virginia § 62.1-44.15.5 and the Water Quality Certification requirements of Section 401 of the Clean Water Act of 1972.
- *Dunes Management.* Dune protection is carried out pursuant to the Coastal Primary Sand Dune Protection Act and is intended to prevent destruction or alteration of primary dunes. This program is administered by the Marine Resources Commission (Code of Virginia § 28.2-1400 thru 28.2-1420).
- *Non-point Source Pollution Control.* Virginia's Erosion and Sediment Control Law requires soil-disturbing projects to be designed to reduce soil erosion and to decrease inputs of chemical nutrients and sediments to the Chesapeake Bay, its tributaries, and other rivers and waters of the Commonwealth. This program is administered by the Department of Conservation and Recreation (Code of Virginia § 10.1-560 *et.seq.*).
- *Point Source Pollution Control.* The point source program is administered by the State Water Control Board pursuant to Code of Virginia § 62.1-44.15. Point source pollution control is accomplished through the implementation of the NPDES permit program established pursuant to

Section 402 of the federal Clean Water Act and administered in Virginia as the Virginia Pollutant Discharge Elimination System permit program.

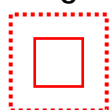
- *Shoreline Sanitation.* The purpose of this program is to regulate the installation of septic tanks, set standards concerning soil types suitable for septic tanks, and specify minimum distances that tanks must be placed away from streams, rivers, and other waters of the Commonwealth. This program is administered by the Department of Health (Code of Virginia § 32.1-164 thru § 32.1-165).
- *Air Pollution Control.* The program implements the federal CAA to provide a legally enforceable State Implementation Plan for the attainment and maintenance of the NAAQS. This program is administered by the State Air Pollution Control Board (Code of Virginia § 10-1.1300).
- *Coastal Lands Management.* This program is a state-local cooperative program administered by the Chesapeake Bay Local Assistance Department and 84 localities in the Hampton Roads area of Virginia established pursuant to the Chesapeake Bay Preservation Act; Code of Virginia § 10.1-2100 thru § 10.1-2114 and Chesapeake Bay Preservation Area Designation and Management Regulations; Virginia Administrative Code 9 VAC 10-20-10 *et seq.*

The Federal Consistency Regulations also include several Advisory Policies including those for Geographic Areas of Particular Concern; Coastal Natural Resource Area, Coastal Natural Hazard Area, and Waterfront Development Areas. The Advisory Policies also include Shorefront access Planning and Protections areas: Virginia Public Beaches, Virginia Outdoors Plan, Parks, Natural Areas, and Wildlife Management Areas, Waterfront Recreational Land Acquisition, Waterfront Recreational Facilities, and Waterfront Historic Properties.

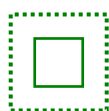
Figure 3.5-1: Current Land Use Surrounding the Proposed Construction Locations



### Legend



Location of Proposed Project Area  
and Projected Building



Location of Alternative A Project  
Area and Alternative Building



Administrative



Open Space



Community Service



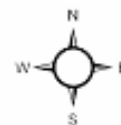
Housing (Accompanied)



Industrial



Outdoor Recreation



Map adapted from Langley AFB, 2000a.

## **3.6 Hazardous Waste Management and Environmental Restoration**

This section addresses Langley AFB hazardous waste management and environmental restoration program. Hazardous materials, substances, and wastes, are required to be handled, managed, treated, or stored properly by trained personnel under the following regulations; Occupational Safety and Health Administration (OSHA) Hazardous Communication, 29 CFR 1900.1200 and 29 CFR 1926.59, Department of Transportation (DOT) Hazardous Materials, 49 CFR 172.101, and EPA, 40 CFR 260 et seq. Virginia has state solid waste management and hazardous waste regulations, 9 VAC 20-10 to 20-190.

### **3.6.1 Hazardous Waste Management**

For purposes of this section, hazardous wastes are those wastes that are ignitable, corrosive, reactive, toxic, or that are listed as hazardous wastes under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sec. 6901 et seq.

Langley AFB is a large quantity generator of hazardous waste under the RCRA. The base generates 2,200 pounds or more of hazardous waste per month or 2.2 pounds or more of acutely hazardous waste per month. The Environmental Flight manages the hazardous waste at the various industrial locations around Langley AFB. The Hazardous Waste Management Plan describes the procedures and details of generating, storing, and transporting wastes. All hazardous waste is accumulated from the 40 initial accumulation points across the base and then transported to two 90-day facilities for disposal and removal off base. The two 90-day facilities are located at the Environmental Flight, 1 CES/CEVC at 510 Poplar Road, Building 1390 and the 1 CES/CEOHVP paint and sign shop at 37 Sweeny Road, Building 328. Neither of these facilities is located at the proposed construction location. In the event of a spill of a hazardous substance, Langley AFB has an Emergency Planning and Response Plan to prevent spreading and aid in response. Non-hazardous solid waste generated on base is contracted for removal to either Hampton's Bethel Sanitary Landfill or the Hampton Waste-to-Energy facility for incineration.

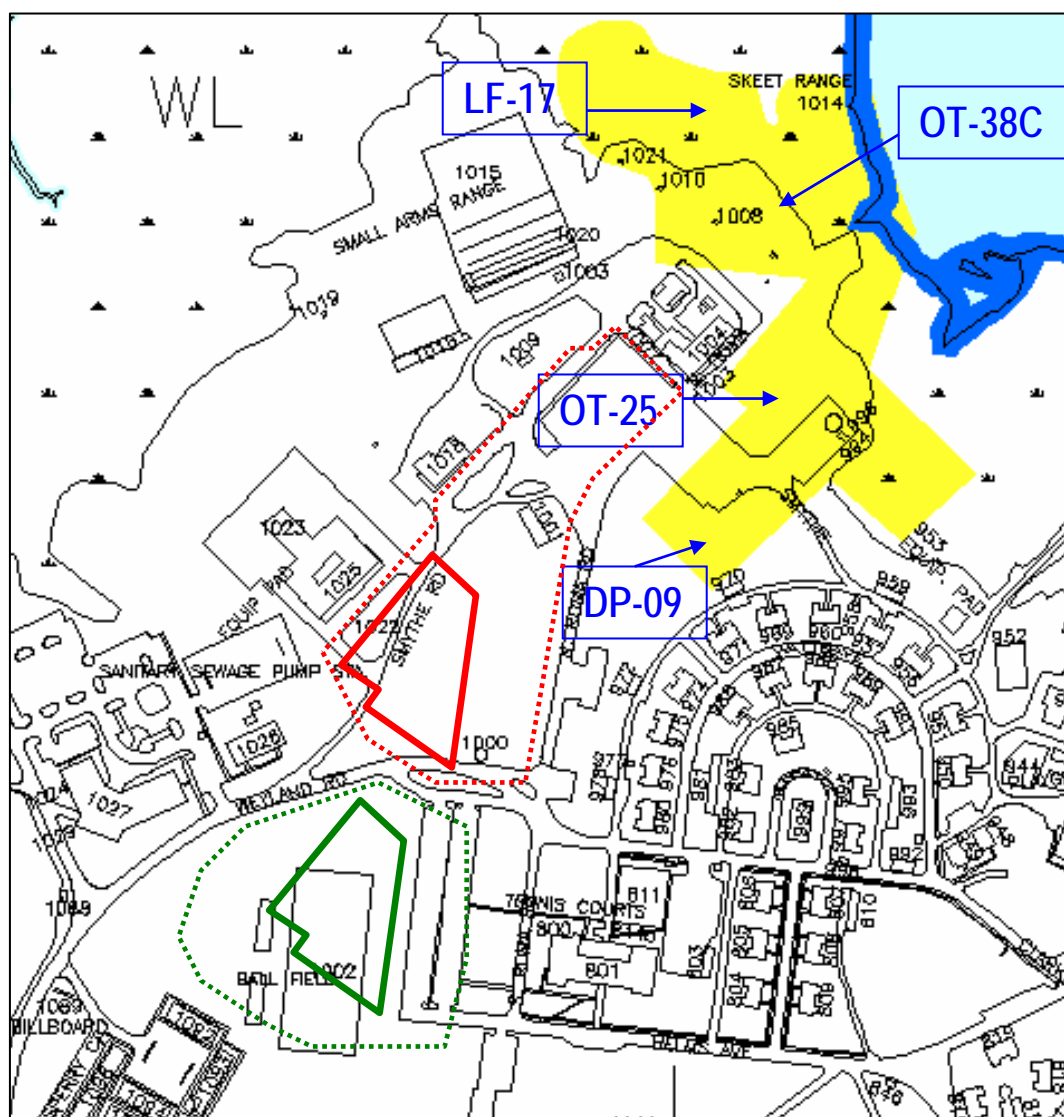
### **3.6.2 Environmental Restoration Program Sites**

The Environmental Restoration Program (ERP), formerly known as the Installation Restoration Program, was established to protect human health and the environment by addressing sites where contamination or the release of a hazardous substance had occurred. For purposes of this section, hazardous substances are generally those included under the Comprehensive Environmental Response, Compensation and

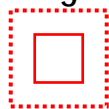
Liability Act (CERCLA), 42 U.S.C. 9601 et seq., and other applicable law, as substances that would pose an imminent and substantial danger to public health or welfare if released (or threatened to be released) into the environment. HQ ACC policy requires that any project on or near an ERP site must be coordinated through the Langley AFB ERP Manager.

Langley AFB has 48 ERP sites listed in the Management Action Plan, four of which are in proximity to the proposed construction locations. The four sites are located to the northeast, approximately ¼ to 1-½ miles away. They are sites DP-09, LF-17, OT-25, and OT-38C. Sites DP-09 and OT-38C have been closed. Site DP-09 is an abandoned gas cylinder disposal site that was closed on November 13, 1997. Site OT-38C is one of four waste oil and trash burn areas on the base, and it was closed on January 14, 1999. Site LF-17 is an abandoned landfill that is currently under a remedial investigation and feasibility study. Site OT-25 is the old Entomology Building 965 and abandoned storage area which is in a proposed plan stage (Langley AFB 2000a). Figure 3.6.2-1 shows the location of the ERP sites around the proposed locations for construction.

Figure 3.6.2-1: ERP Sites Near the Proposed Construction Locations



### Legend

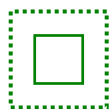


Location of Proposed Project Area and Proposed Building



ERP Sites

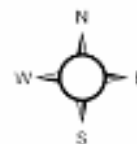
WL Wetlands



Location of Alternative A Project Area and Alternative Building

DP-09

ERP Site Number



Map adapted from Langley AFB, 2000a.

## 3.7 Socioeconomic and Environmental Justice

The socioeconomic resources section describes the population, employment, and housing relationship of Langley AFB and the surrounding area.

### 3.7.1 Demographics

Langley AFB is situated in the Hampton Roads SMSA, bordering the city of Hampton, Virginia to the south and east. Other cities in the area include Newport News, Poquoson, Norfolk, and Portsmouth. The Hampton Roads area of Virginia had a 2000 population of 1,464,437. The demographics of Hampton, Virginia are 49.55 percent white, 44.68 percent Black or African American, 2.84 percent Hispanic or Latino, 1.84 percent Asian, and 0.42 percent American Indian and Alaskan Native (Hampton City 2004).

The base has over 21,000 people associated with it. Approximately 25 percent of the military personnel and 40 percent of the family members currently reside on the main base or the Bethel Manor Military Family Housing Area. Table 3.7.1-1 shows the breakdown of the personnel associated with Langley AFB (Langley AFB 2000a).

**Table 3.7.1-1**  
**Breakdown of Population Associated with Langley AFB**

Personnel	Population
Military Personnel	8,717
Appropriated Fund Civilian	1,945
Non-appropriated Fund Civilian	520
Family Members	10,279
Total	21,461

(Langley AFB 2000a)

Because of the location and number of personnel of Langley AFB, it has a significant positive socioeconomic impact on the Hampton Roads region. The personnel and organizations associated with Langley AFB purchase large amount of goods and services from the region. In 1999, Langley AFB purchased more than \$260 million in goods and services from the regional businesses (Langley AFB 2000a).



### **3.7.2 Environmental Justice**

Environmental Justice is the fair treatment for people of all races, cultures, and incomes, regarding the development and implementation (or lack thereof) of environmental laws, regulations, and policies. Executive Order (EO) 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 1994) requires federal agencies to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high human health or environmental effects of its programs, policies, and activities on minority populations and low income populations.” A memorandum from the President concerning EO 12898 stated that federal agencies would collect and analyze information concerning a project’s effects on minorities or low-income groups when required by NEPA. If such investigations find that minority or low-income groups experience a disproportionate adverse effect, then avoidance or mitigation measures are to be taken.

In addition to the demographics detailed above, Hampton, Virginia had a median household money income in 1999 of \$39,532, with a per capita money income of \$19,774. The Department of Health and Human Services (HHS) issues guidelines of the poverty thresholds. In 2003, the poverty guideline for a family of two in the 48 contiguous states and the District of Columbia was an annual income of \$12,120. For a family of four, it was \$18,400 (HHS 2003). As of 1999, there was 11.3 percent of the population living below poverty in Hampton, VA, which is above the Virginia average of 9.6 percent (USCB 2003a).

### **3.8 Noise**

The noise environment is predominantly a measure of the resulting cumulative noise exposure from the aircraft and other operations at Langley AFB. The noise exposure is measured as an average day-night sound level (DNL) which takes into account the time of day that events occur. Noise that occurs between 10:00 PM and 7:00 AM is weighted more heavily than noise during the day due to the difference in human noise perception during nighttime. Noise levels within the 65 decibel A-weighted (dBA) contour are similar to an urban environment and within the 75 dBA contour would be similar to the downtown area of a major city.

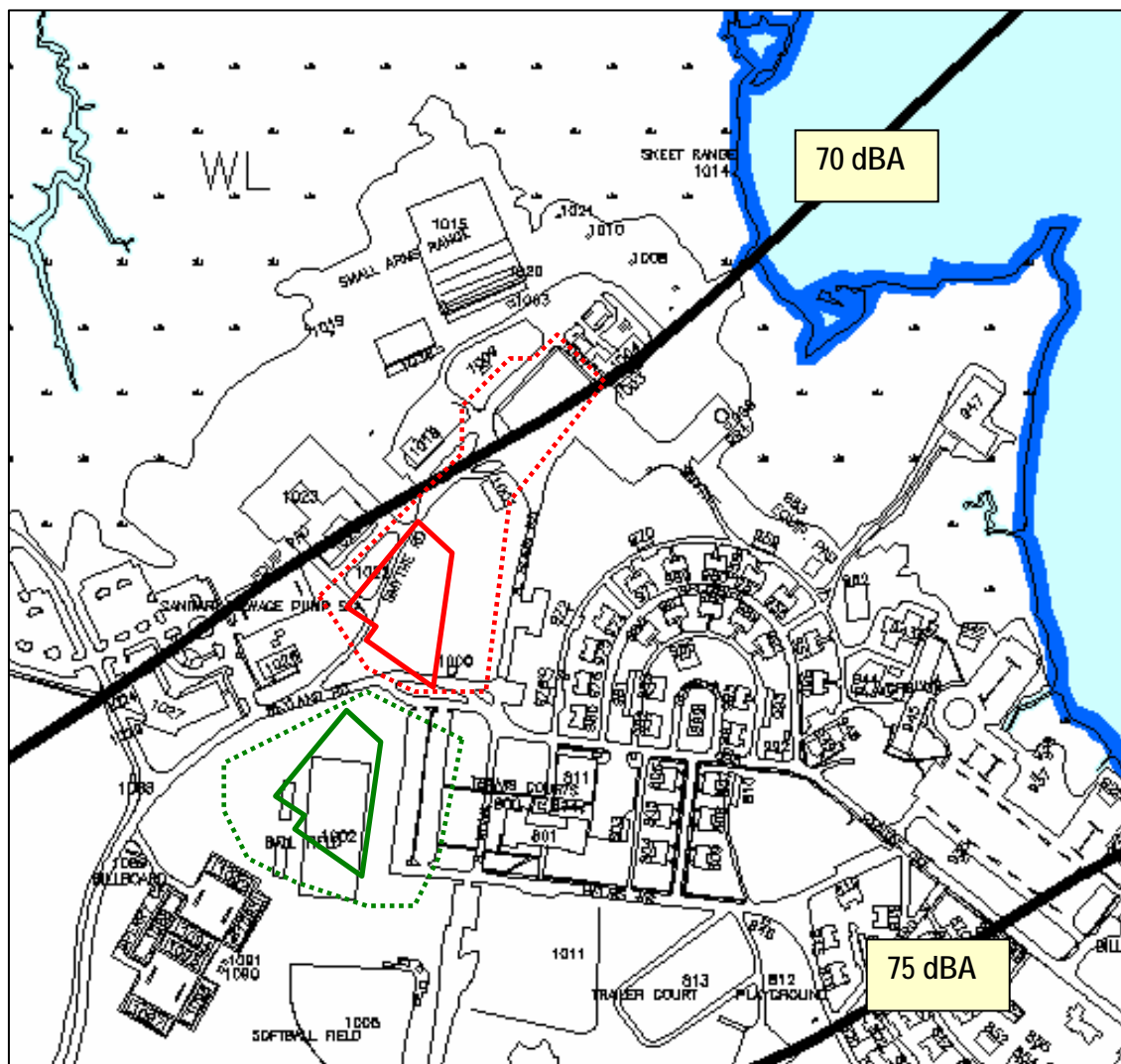
Langley AFB experiences a high amount of noise as a result of the use and maintenance of aircraft at the airfield as well as intermittent construction activities that can temporarily increase the noise levels surrounding the construction. DNL of 65 - 85 dBA have been mapped in the Air Installation Compatible

Use Zone (AICUZ) Study, 1997, for the base and surrounding communities. The noise contours generally follow the northeast-southwest alignment of the airfield runways. The noise level for the construction locations are situated in the 70 dBA noise contour, above 70 dBA and lower than 75 dBA. Figure 3.8-1 provides a map of the noise contours relative to the construction locations.

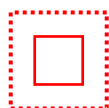
### **3.9 Safety and Occupational Health**

Areas of safety and occupational health would include various construction and maintenance work that occurs throughout the proposed action location. Personal protection, operation of machinery, handling hazardous materials, and numerous other actions require that proper steps be taken to protect oneself and the surrounding people from unsafe conditions. As part of any Air Force or contracted job on Langley AFB, the proper regulations are required to be followed. Any personnel performing occupational maintenance, construction, or renovation actions would be subject to OSHA's safety and health regulations which include, but are not limited to, 29 CFR 1910.132 General Requirements for Personal Protective Equipment, 29 CFR 1900.1200 and 29 CFR 1926.59 Hazard Communication, 29 CFR 1926 Safety and Health Regulations for Construction, and any other safety regulation that would be encountered during demolition, construction, or renovation.

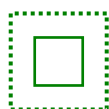
Figure 3.8-1: Day-Night Noise Level Contours in Relation to the Proposed Construction Locations



### Legend



Location of Proposed Project Area and Proposed Building



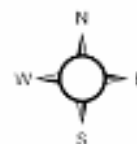
Location of Alternative Project Area and Alternative Building



Noise Contour (in dBA)

WL

Wetlands



Map adapted from Langley AFB, 2000a.

## 4.0 ENVIRONMENTAL CONSEQUENCES

This chapter describes the environmental consequences of the Proposed Action, Alternative A, and the No Action Alternative. The environmental consequences could be positive or negative, immediate or long term, direct, indirect, or cumulative.

### 4.1 Air Quality

#### *Significance Criteria*

- Any impact to air quality in attainment areas would be considered significant if pollutant emissions associated with the proposed alternatives caused, or contributed to a violation of any national, state, or local ambient air quality standard, exposed sensitive receptors to substantially increased pollutant concentrations, or represented an increase of ten percent or more in affected Air Quality Control Region's emissions inventory.
- Impacts to air quality in nonattainment areas would be considered significant if the net change in proposed pollutant emissions caused or contributed to a violation of any national, state, or local ambient air quality standard; or increased the frequency or severity of a violation of any ambient air quality standard.
- With respect to the General Conformity Rule, impacts to air quality would be considered significant if emissions increased a nonattainment or maintenance area's emissions inventory by ten percent or more for individual nonattainment pollutants; or exceeded de minimis threshold levels established in 40 CFR 93.153(b) for individual nonattainment pollutants or pollutants for which an area has been redesigned as a maintenance area.

#### 4.1.1 Proposed Action

During the construction of the proposed action, local air quality at Langley AFB could be temporarily affected by fugitive dust emissions, by construction vehicle emissions, and by vehicular emissions from commuting activities of the workforce and suppliers. These impacts would vary throughout the construction process and would stop once construction completes; therefore, the effects on long-term air quality would be insignificant. The construction of the new communications facility and associated parking lots, including grading and other earthmoving activities, would disturb approximately 7.5 acres of land. The emissions factor for total suspended particulate concentrations surrounding a construction project is 1.2 tons/acre/month of activity (EPA 1995). The total amount of fugitive dust generated during the construction

of the new communications building would be approximately 0.16 tons/month of activity. This would not exceed dust generated from a typical construction project and would not be a significant increase compared to all of the operations at Langley AFB. Although the construction process would potentially result in the emission of fugitive dust and exhaust from vehicles and equipment, these impacts are minor and of limited duration.

Construction activities under the Proposed Action would occur during FY 2009 and would be approximately one year in duration. The specific construction equipment to be used at the project sites has not yet been identified, but diesel-powered vehicles and machinery are commonly used in the construction of this type of project. Diesel engines emit particulates, carbon monoxide and ozone precursors, and particularly elevated levels of NO<sub>2</sub>. However, these emissions are included in the base emission inventory that is the basis for regional air quality plans. Therefore, pollutants are not expected to impede attainment or maintenance of the standards in the project area. Emissions would be short-term and would vary with the level of activity, silt and moisture content of the soil, amount of soil exposure, and wind speed. Large dust particles would be expected to occur within a 200 to 800 foot radius of the construction sites. Smaller particulates would remain suspended for a longer period of time and be carried a further distance based on meteorological conditions. There would be a smaller amount of dust generated from construction traffic on potentially unpaved roads. This would be expected to be insignificant because most construction areas would have access via paved roads. Appropriate measures and best management construction practices, such as watering disturbed areas and minimizing idling time of equipment, would be taken to reduce temporary impacts.

Langley AFB is in a marginal nonattainment area for federal ozone standards. However, VOCs and nitrous oxides (NO<sub>x</sub>) emissions generated during construction and demolition activities would be below de minimis levels (100 tons/year); therefore, a formal conformity determination is not required.

Long term air quality impacts from the construction of an 87,284 square foot office building as included in the proposed action would include emissions from the external combustion units used to provide building heating and domestic hot water heaters. Based on the square footage of the building, the estimated heat input rating of the external combustion units would be six (6) million British thermal units per hour (MMBtu/hr). Based on fuel consumption of comparable buildings on Langley AFB, the yearly natural gas

usage would be approximately six (6) million cubic feet per year (MMcf/yr) of natural gas, with a potential usage of 23.6 MMcf/yr. Emissions from the combustion of natural gas in an external combustion unit would include oxides of nitrogen (NO<sub>x</sub>), Particulate Matter (total, particulate matter with an aerodynamic diameter less than 10 microns, and particulate matter with an aerodynamic diameter less than 2.5 microns), oxides of sulfur (SO<sub>x</sub>), volatile organic carbon (VOC), carbon monoxide (CO), and hazardous air pollutants. Emissions from the external combustion units in the proposed building would not cause an exceedance in the current air quality operating permit. The actual and potential emissions for Langley AFB as taken from the CY03 Air Emissions inventory are given in Table 4.1.1-1. The actual and potential emissions from the proposed Consolidated Communications Facility building are given in Table 4.1.1-2. Emissions calculations for the estimated actual and potential air quality emissions are presented in the Appendix C.

**Table 4.1.1-1**  
**CY03 Air Emissions Inventory Summary of Air Emissions**

<b>Pollutant</b>	<b>CY03 Actual Emissions (tpy)</b>	<b>Potential to Emit (tpy)</b>
PM	4.81	10.7
PM <sub>10</sub>	4.23	10.6
CO	19.3	58.4
NO <sub>x</sub>	37.6	100.8
SO <sub>x</sub>	1.50	2.88
VOC	43.2	86.2
Total HAPS	6.8	13.2

**Table 4.1.1-2**  
**Air Emissions from Consolidated Communications Facility**

<b>Pollutant</b>	<b>Proposed Action Actual Emissions (tpy)</b>	<b>Proposed Action Potential to Emit (tpy)</b>
PM	0.023	0.090
PM <sub>10</sub>	0.023	0.090
CO	0.254	0.993
NO <sub>x</sub>	0.302	1.182
SO <sub>x</sub>	0.002	0.007
VOC	0.017	0.065
Total HAPS	5.70 x 10 <sup>-3</sup>	2.23 x 10 <sup>-2</sup>

#### **4.1.2 Alternative A**

Alternative A would create similar changes in air quality to the Proposed Action. There would be the same construction and similar demolition and removal of roads and open space as the Proposed Action. The local air quality would be temporarily affected by fugitive dust emissions, by construction vehicle emissions, and by vehicular emissions from commuting activities of the workforce and suppliers. These impacts will stop once construction completes; therefore, the effects on long-term air quality would be insignificant.

Long term air quality impacts from Alternative A would be similar to the Proposed Action. The emissions to the ambient air quality would not cause an ascendance to the current air quality operating permit. The actual and potential emissions for Langley AFB as taken from the CY03 Air Emissions inventory are given in Table 4.1.1-1. The actual and potential emissions from the proposed Consolidated Communications Facility building are given in Table 4.1.1-2. Emissions calculations for the estimated actual and potential air quality emissions are presented in the Appendix C.

#### **4.1.3 No Action Alternative**

The No Action Alternative, which represents the current baseline conditions, would mean that the temporary and long term impacts on air emissions from construction activities would not occur and air resources would remain unchanged.

### **4.2 Water Resources**

The water resources on Langley AFB addressed in this EA includes the watershed, floodplain, and coastal zone. This section describes the relationship between these resources and the proposed alternatives.

#### *Significance Criteria*

Impacts to water resources would be considered significant if the Proposed Action would:

- Create potential damage to structures located in the floodplain.
- Cause changes to the extent, elevation, or other features of the floodplain as a result of flood protection measures or other structures being sited in or removed from the floodplain.
- Reduce water availability, quality, and use.

#### **4.2.1 Proposed Action**

The Proposed Action would not directly affect (change or re-direct) the surface water systems. This includes streams, lakes, and floodplain. The proposed building location is located within the 100-year floodplain, and current land use is administrative and light industrial. Construction of the consolidated communications facility would not change the current land use, nor would it alter any stream, coastline, or wetland, and would neither impact the existing floodplain. The building design would require precautionary measures to lessen the impact of flooding on equipment, documents, electrical equipment, and other utilities. This would include housing critical operational nodes and equipment that could be damaged on the second floor. The Proposed Action would be located in Virginia's coastal resource management areas and therefore would be subject to undergo a consistency determination as part of the Federal Consistency Regulations for activities in coastal areas. See section 4.5 Land Use for the analysis pertaining to the Federal Consistency Regulations.

Short-term effects during the construction could cause negligible to minor increase to the amount of pollutants introduced into the storm water. Construction projects of this nature require heavy machinery, use of various hazardous materials, including increased fuel and lubricant use, as well as soil pollutants disturbed and released from any excavation activity. Any work performed during the construction process would be bound by the terms of the Stormwater Construction permit obtained from VDEQ prior to groundbreaking activities. In the event that construction activities alter the floodplain or waterway, an application through VDEQ would be submitted.

#### **4.2.2 Alternative A**

This Alternative would have a similar impact on the water resources as the Proposed Action. The proposed building location is partially located within the 100-year floodplain and current land use is outdoor recreation. Construction of the proposed facility would change the current land use from outdoor recreation to administrative and/or light industrial. By constructing a building and additional parking on existing ball fields, increased impervious grounds would be created, leading to a decrease in precipitation absorption and increased runoff into the storm drains. The increased runoff would be insignificant to the overall runoff of the base which is developed with industrial, administrative, and housing property. Therefore, the proposed Alternative would not alter any stream, coastline, wetland, or impact the existing floodplain.



#### **4.2.3 No Action Alternative**

The No Action Alternative would not pose any impacts to water resources at Langley AFB. There would be no construction or alteration of any water resources; the current baseline conditions would remain unchanged.

### **4.3 Biological Resources**

The biological resources areas on Langley AFB include the terrestrial communities, wetlands and freshwater aquatic communities, and existence of threatened or endangered plants. These areas would be considered significant issues if any of the Alternatives would encroach on, diminish, or interfere with the current habitats or sensitive areas.

#### *Significance Criteria*

Impacts to natural resources would be considered significant if the proposed Alternatives would:

- Destroy, lose, or degrade wetlands (as defined by Section 404 of the CWA).
- Fill a wetland.
- Affect a threatened or endangered species.
- Substantially diminish habitat for a plant or animal species.
- Substantially diminish a regionally or locally important plant or animal species.
- Interfere substantially with wildlife movement or reproductive behavior.
- Result in a substantial infusion of exotic plant or animal species.

#### **4.3.1 Proposed Action**

The Proposed Action would have minor to no impacts on the biological resources. Any minor impacts would be short-term during the construction process. There would be no long-term impacts.

#### **Terrestrial Communities**

The BASH Plan identifies vegetation management areas and water bodies that attract birds. These particular areas are not located near the proposed location and the project would not affect any of the vegetation or water bodies listed in the BASH Plan.

Langley AFB is planning to develop a Landscape Management Plan and Urban Forest Management Plan (UFMP). Both plans would make recommendations for the planting or replacing of vegetation that may occur with the proposed action.

Short-term impacts of the construction activities could include minor negative noise and disturbance to any wildlife in the immediate area, including the strip of forested open space on the eastern side of N. Roma Road. Any impacts would be temporary and minor and would diminish once construction activities have been completed.

### **Wetlands and Freshwater Aquatic Communities**

There would be negligible to no impact to wetlands that exist to the northwest beyond Buildings 1023, 1025, and the Sanitary Sewage Pump Station, as the construction of new facility is located approximately 700 to 1000 feet from the nearest wetlands. There could be potential minor indirect impacts on wetlands from increased soil erosion and potential contamination from hazardous material spills during construction. Any minor impacts would be temporary and self-remediating once construction is complete. In the event of an unlikely large hazardous material spill, there is the potential for permanent negative impact to wetlands. Langley AFB's Virginia Erosion and Sediment Control Handbook and stormwater construction permit would be referenced to protect and minimize any indirect impacts (Langley AFB 1998b).

### **Threatened, Endangered, and Special Status Species/Communities**

The location of the proposed construction is currently developed property for administrative and industrial use and does not provide optimal feeding and breeding habitat for mammals and reptiles. The twelve federally listed, proposed and candidate and species of concern within a 50-mile radius of Langley AFB do not occur on or near the proposed location. Coordination with the U.S. Fish and Wildlife Service indicated that the proposed action would not be likely to adversely affect any federally listed or proposed species or designated critical habitat (USFWS 2004). Coordination with the Virginia Department of Game and Inland Fisheries indicated that the canebrake rattlesnake (*Crotalus horridus*), a state endangered species, has been documented approximately 1.75 miles from the proposed construction location. Any action at the proposed location would require coordination with the Virginia Department of Game and Inland Fisheries, Region 1 Wildlife Diversity Biologist, concerning potential impacts to this species (VA Department of Game and Inland Fisheries 2004).

#### **4.3.2 Alternative A**

Alternative A would have a similar minor impact on the natural environment as the Proposed Action. Any minor impacts would be short-term during the construction process. There would be no long-term impacts.

##### **Terrestrial Communities**

The proposed location is not located near any of the vegetation management areas and water bodies that attract birds that are identified in the BASH Plan; therefore, there would be no affect to these areas. Any planting or replacing of vegetation that may occur as part of the Alternative would have to meet the requirements set forth in the Landscape Management Plan and UFMP that Langley AFB is planning to develop.

Short-term impacts of the construction activities could include minor negative noise and disturbance to any wildlife in the immediate area, including in the strip of forested open space on the eastern side of N. Roma Road. Any impacts would be temporary and minor and would diminish once construction activities have been completed.

##### **Wetlands and Freshwater Aquatic Communities**

There would be no impact to the wetlands that exist to the northwest beyond Buildings 1023, 1025, and the Sanitary Sewage Pump Station, as the construction of new facility is located over approximately 1000 feet from the nearest wetlands. In the event of a large amount of increased soil erosion and potential contamination from large hazardous material spills during construction there could be minor indirect impacts on the wetlands. Any minor impacts would be temporary and self-remediating once construction is complete. In the event of an unlikely large hazardous material spill, there is the potential for permanent negative impact to wetlands. Langley AFB's Virginia Erosion and Sediment Control Handbook and stormwater construction permit would be referenced to protect and minimize any indirect impacts (Langley AFB 1998b).

##### **Threatened, Endangered, and Special Status Species/Communities**

Alternative A would not affect any federally listed or proposed species or designated critical habitat (USFWS 2004). The location of the Alternative is currently ball fields and a parking lot. It does not provide optimal feeding and breeding habitat for mammals and reptiles. The twelve federally listed, proposed and candidate

and species of concern within a 50-mile radius of Langley AFB do not occur on or near the proposed location. The canebrake rattlesnake (*Crotalus horridus*), a state endangered species, has been documented approximately 1.75 miles from the proposed construction location. Any action at the proposed location would require coordination with the Virginia Department of Game and Inland Fisheries, Region 1 Wildlife Diversity Biologist, concerning potential impacts to this species (VA Department of Game and Inland Fisheries 2004).

#### **4.3.3 No Action Alternative**

The No Action Alternative would have no impact on the Biological Resources. Construction of the new facility would not take place and the existing Biological Resources would remain unchanged.

#### **Terrestrial Communities**

The No Action Alternative would not result in any impact to the biological terrestrial communities at Langley AFB, as there would be no new construction or alteration of land use or traffic patterns on base.

#### **Wetlands and Freshwater Aquatic Communities**

The No Action Alternative would have no impact on wetlands or the freshwater aquatic communities at Langley AFB, as there would be no new construction or alteration of land use or traffic patterns on base.

#### **Threatened, Endangered, and Special Status Species/Communities**

The No Action Alternative would not result in any impact to threatened or endangered species at Langley AFB, as there would be no new construction or alteration of land use or traffic patterns on base.

### **4.4 Cultural Resources**

Cultural resources include culturally, historically, or archaeologically significant locations or structures. Cultural resources can be adversely affected by actions that would physically destroy or damage the locations, introduce elements that would alter the character of the site, or diminish the site by other means.

#### *Significance Criteria*

A proposed Alternative is considered to have a potential effect on a historic property or archaeological resource when the Alternative may alter characteristics of the property that could qualify the property for

inclusion in the National Register of Historic Places (NRHP). An effect is considered adverse when it diminishes the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties/ archaeological resources include, but are not limited to:

- Physical destruction, damage, or alteration of all or part of the property.
- Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register.
- Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting.
- Neglect of a property resulting in its deterioration or destruction.
- Transfer, lease, or sale of the property (36 CFR 800.9[b]).

#### **4.4.1 Proposed Action**

This Proposed Action would have a positive affect on the culturally significant locations defined in Chapter 3.4. The construction location would be partially located in the Langley Field Historical District as well as in close proximity to historical Buildings 1001, 1004, 1018, and the Water Tower 1000. Langley AFB's Community Planning department is handling all coordination with the SHPO concerning the buildings surrounding the proposed location. According to the North Base Support ADP, Building 1001 is now vacant and in very poor condition and Langley AFB is in consultation with the SHPO for demolition. The renovation of Building 1001 would be a positive impact on the aesthetic and cultural aspect of the North Base Support Area. There are goals to rehabilitate historic Buildings 1004 and 1007 and provide for long-term adaptive use, another positive impact. The construction of this new facility would require the demolition of the water tower, Building 1000. Although this would appear a negative impact on this structure, it is deteriorating and would eventually require demolition or renovation. Any construction or other activities that would compromise or encroach on any of the historic locations must comply with the procedures of the Langley AFB Cultural Resource Management Plan, 1998. The Proposed Action would have a positive impact on cultural resources at Langley AFB as it would upgrade the character of the locations, minus the demolition of the water tower. Consolidation with the Commonwealth of Virginia, Department of Conservation and Recreation stated, "due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources" (DCR 2004a). Figure 3.4-1 shows the location of the Proposed Action in relation to the Historic District and

the historical buildings.

#### **4.4.2 Alternative A**

Alternative A would similarly have a positive impact on the culturally significant locations defined in Chapter 3.4. The location of this Alternative would be outside of the Langley Field Historical District and would be located further away than the Proposed Action from the historic buildings referenced in Section 4.4.1. Buildings 1001, 1004, and 1007 would be renovated and the water tower, Building 1000, would need to be demolished. Figure 3.4-1 shows the location of Alternative A in relation to the Historic District and the historical buildings.

#### **4.4.3 No Action Alternative**

The No Action alternative would have no impact on the culturally significant locations of Langley AFB. No construction would occur on or around any of the culturally significant locations on base.

### **4.5 Land Use**

Land use on Langley AFB describes the activities and management of the various plots of land on the base. Administrative, recreation, and Air Force operations are a few of the land uses on base. This section describes the impacts on both land use and the housing infrastructure from the various Alternatives.

#### *Significance Criteria*

An impact to land use would be considered significant if one or more of the following occur as a result of the proposed Alternatives:

- Conflict with applicable ordinances and/or permit requirements
- Nonconformance with applicable land use plans
- Preclusion of adjacent or nearby properties being used for existing activities
- Conflict with established uses of an area

#### **4.5.1 Proposed Action**

The Proposed Action would not create a conflict of land use on base. Although it would convert approximately 4.5 to 5 acres of open space to administrative use, as well as bring approximately 430

personnel to the new North Base Support campus area, it would be compatible with Langley AFB's land use plans to develop the land in the North Base Support Area (Langley AFB 2000a). See Figure 4.5-1 for current and proposed land use of the area surrounding the proposed location. The construction of the new building, parking lot, and associated pedestrian use areas and landscaping would have a positive impact on the aesthetic quality of the North Base Support Area as the area is currently not fully developed or maintained and has roads and buildings that are of poor quality. The Proposed Action would increase the traffic and personnel use to the area, which is adjacent to military family housing, located to the east of the proposed facility. The impact would not be significant to the traffic, noise, or use of the military family housing as the Proposed Action would be compatible with the Langley AFB's AICUZ Plan (Langley AFB 1997) and would meet the goals set forth in the North Base Support ADP (Langley AFB 2000b) to:

- Co-locate as many 1 CS and 1 CS-related functions as possible into a consolidated, pedestrian-oriented campus environment.
- Ensure the "walk ability" of the new campus.
- Provide appropriate force protection for new and renovated facilities.
- Provide adequate parking for privately-owned and military vehicles and improve vehicular access and circulation.
- Enhance the historic, low density, character of the area.
- Provide quality landscaping, signage, lighting, and other site amenities to create a professional-appearing complex.
- Maintain existing trees where possible and incorporate them into the overall campus plan.

The proposed location would be constructed in coastal management areas regulated by the Coastal Zone Management Act and the VCP. Due to its location, it is subject to a consistency determination as part of the Federal Consistency Regulations for activities in coastal areas. The following is an analysis of the Proposed Action and the enforceable policies of the VCP.

- *Fisheries Management.* The Proposed Action would not impact Fisheries Management as the construction of the new facility would not encroach on or influence the finfish and shellfish resources and commercial and recreational fisheries. The construction activities would not include possession, sale, or use of marine antifouling paints containing Tributyltin.

- *Subaqueous Lands Management.* The Proposed Action would not impact Subaqueous Lands Management as the construction of the new facility would not involve the use of state-owned bottomlands.
- *Wetlands Management.* The Proposed Action would not impact Wetlands Management as the construction of the new facility would not encroach or destroy any tidal wetlands. See section 4.3.1 for further discussion of wetlands.
- *Dunes Management.* The Proposed Action would not impact Dune Management as the construction of the new facility would not be located near any dunes and therefore would not destroy or alter primary dunes.
- *Non-point Source Pollution Control.* The Proposed Action would involve the disturbance of soil during construction activities. The construction process would require personnel to follow the guidelines set forth in Langley AFB's Virginia Erosion and Sediment Handbook and the stormwater construction permit to protect and minimize any soil erosion and potential contamination from hazardous material spills during construction.
- *Point Source Pollution Control.* Langley AFB has a SWPPP in place with best management practices that would be followed for any construction that has the potential to introduce pollutants into the stormwater system, such as the proposed construction. The SWPPP is regulated under the Virginia Pollutant Discharge Elimination System (VPDES) and NPDES.
- *Shoreline Sanitation.* The Proposed Action would not impact Shoreline Sanitation, as the construction of the new facility would not install septic tanks near any streams, rivers, or other waters.
- *Air Pollution Control.* During the construction of the proposed facility, local air quality at Langley AFB could be temporarily affected by fugitive dust emissions, by construction vehicle emissions, and by vehicular emissions from commuting activities of the workforce and suppliers. These impacts will stop once construction completes; therefore, the effects on long-term air quality would be insignificant. Further analysis of Air Pollution Control is found in section 4.1.1.



- *Coastal Lands Management.* The Proposed Action would not impact Coastal Lands Management, as the new facility would be constructed on property that is currently classified as Administrative and Industrial use by Langley AFB (Langley AFB 2000a).

The Federal Consistency Regulations also include several Advisory Policies including those for Geographic Areas of Particular Concern. The Proposed Action would not impact any of the Coastal Natural Resource Areas, as the new facility would be constructed on property that is currently classified as Administrative and Industrial use by Langley AFB. The Coastal Natural Resource Areas include wetlands, aquatic spawning, nursery, and feeding grounds, coastal primary sand dunes, barrier islands, significant wildlife habitat areas, public recreation areas, sand and gravel resources, and underwater historic sites. This action would not impact the Coastal Natural Hazard Area or the Waterfront Development Areas. It would not be located near any highly erodible or coastal high hazard areas or near any commercial ports, commercial fishing piers, or community waterfronts.

The Advisory Policies also include Shorefront Access Planning and Protections areas: Virginia Public Beaches, Virginia Outdoors Plan, Parks, Natural Areas, and Wildlife Management Areas, Waterfront Recreational Land Acquisition, Waterfront Recreational Facilities, and Waterfront Historic Properties. The Proposed Action would not be constructed on a shorefront that would encroach or impact on any of the listed areas.

#### **4.5.2 Alternative A**

Alternative A would not create a conflict of land use on base. Although it would convert approximately 4.5 to 5 acres of outdoor recreational space to administrative and light industrial space, it would be compatible with the proposed future administrative land use (Langley AFB 2000a). See Figure 4.5-1 for current and proposed land use of the area surrounding Alternative A. This Alternative would not be located in the North Base Support Area and therefore would not be compatible with Langley AFB's land use plans to develop the land in the North Base Support Area (Langley AFB 2000a). The construction of the new building, parking lot, and associated pedestrian use areas and landscaping would have a negative impact on the visual and aesthetic quality of the location as it would take away the recreational ball fields and tennis courts. The proposed Alternative would increase the traffic and personnel use to the area which is adjacent to military family housing located to the northeast of the proposed facility. The impact would not be

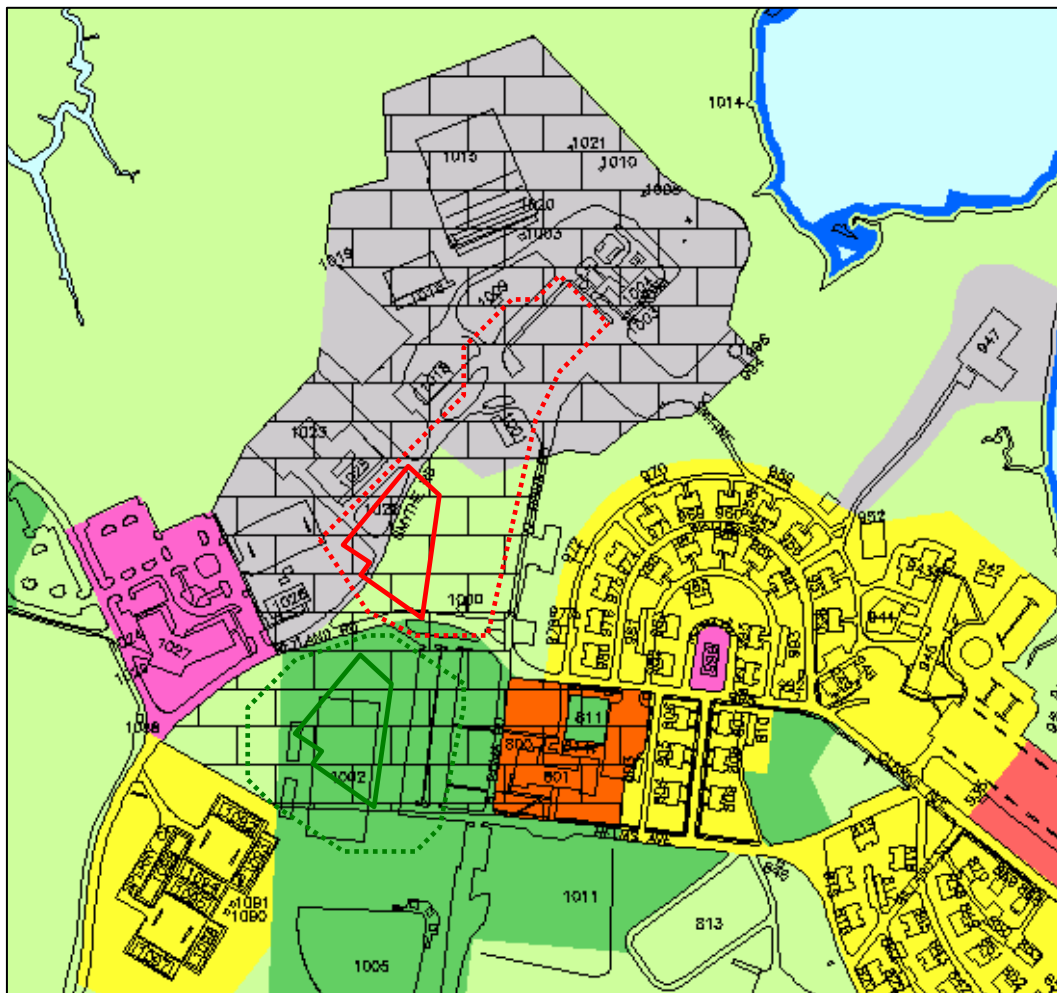
significant to the traffic, noise, or use of the military family housing as the Alternative would be compatible with the Langley AFB's AICUZ Plan (Langley AFB 1997).

Alternative A would be constructed in coastal management areas regulated by the Coastal Zone Management Act and the VCP. Due to its location, it is subject to a consistency determination as part of the Federal Consistency Regulations for activities in coastal areas. Alternative A would have the same analysis for the Federal Consistency Regulation and Advisory Policies as the Proposed Action. See section 4.5.1 for a review of the analysis and the enforceable policies of the VCP.

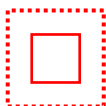
#### **4.5.3 No Action Alternative**

The No Action Alternative would have no impact on the existing land use at Langley AFB. Under this alternative, no construction would occur; therefore, there would be no relocation of personnel, no change in uses of the existing buildings, no change to the existing traffic patterns, no impact to the adjacent military family housing, and an analysis of the Federal Consistency Regulations for activities in coastal areas is not required. The No Action Alternative would not meet the goals set forth in the North Base Support ADP that are described in section 4.5.1.

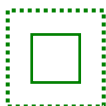
Figure 4.5-1: Proposed Land Use of the North Base Support Area  
Imposed on the Current Land Use



### Legend



Location of Proposed Project  
Area and Proposed Building



Location of Alternative A Project  
Area and Alternative Building



Administrative



Future Administrative Land Use



Community Service



Housing (Accompanied)



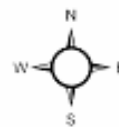
Industrial



Outdoor Recreation



Open Space



Map adapted from Langley AFB, 2000a.

## 4.6 Hazardous Waste Management and Environmental Restoration

Federal, state, and local laws regulate the use, storage, and transportation of hazardous materials and waste. These laws are designed to protect those who are using them, the surrounding personnel, and the environment. Impacts of the alternatives may include the increased use and on-site storage of hazardous substances, the creation and removal of wastes, and the potential for a spill or release of these substances.

### *Significance Criteria*

Numerous local, state, and federal laws regulate the storage, handling, disposal, and transportation of hazardous material and waste. The primary purpose of these laws is to protect public health and the environment. Potential impacts associated with hazardous material and waste would be significant if:

- The storage, use, transportation, or disposal of these substances was to substantially increase the risk to human health or exposure to the environment.
- The capacity of the base was unable to handle the volume of hazardous materials or waste.

### 4.6.1 Proposed Action

The Proposed Action would create minor to moderate short-term increases in the use of hazardous materials and the creation of hazardous waste. The proposed location would not encroach or impact any ERP sites. During the construction processes, the use and transportation of hazardous materials that would be regulated by OSHA and DOT, as well as the creation of hazardous wastes, regulated by EPA, would be present. If hazardous wastes were to be generated during this process, the organization generating the waste would coordinate the removal of waste and manifests with Langley AFB's Hazardous Waste Manager. Potential wastes generated by the proposed construction include various paints, petroleum, oil products, solvents, and other chemicals that would be involved in construction. There would not be any creation of temporary accumulation points during the Proposed Action, as the waste generated during the demolition, renovation, and construction would not be transferred to the Langley AFB 90-day hazardous waste storage facility. Any hazardous waste generated during the demolition, renovation, and construction of the facility would be disposed of according to applicable laws governing hazardous waste.

This action would not create any significant long-term increases or decreases in the use of regulated hazardous materials or waste managed and removed on base, as the new facility would not be classified

as a hazardous waste accumulation point. The consolidation of various communication facilities would reduce the number of potential initial accumulation points. Any work performed for this action would have to be in accordance with Langley AFB's Hazardous Waste Management Plan and the Spill Prevention and Response Plan.

#### **4.6.2 Alternative A**

Implementation of this Alternative would have similar minor to moderate short-term increases in the use of hazardous materials and creation of hazardous wastes as the Proposed Action. Personnel and organizations performing the work would have to take the same precautions and work within the laws and regulations governing their hazardous materials and waste. There would be no long-term increases or decreases in the use of hazardous materials or waste to be removed off base. Any work performed for this action would have to be in accordance with Langley AFB's Hazardous Waste Management Plan and the Spill Prevention and Response Plan.

#### **4.6.3 No Action Alternative**

The No Action alternative would have no impact in the use, storage, or transportation of hazardous materials and hazardous waste or encroach or impact the ERP sites. Under this Alternative, there would be no change in the use of hazardous materials or generation of hazardous waste at the existing communication buildings. There would also be no impact on the ERP, as there would be no relocation of personnel, change in transportation patterns, or construction that may encroach on an ERP site.

### **4.7 Socioeconomic and Environmental Justice**

The socioeconomic resources are assessed in terms of the relationship between the population, employment, and community of Langley AFB and the consequences the various alternatives would have on these items in the surrounding community. Environmental Justice is the fair treatment for people of all races, cultures, and incomes, regarding the development and implementation (or lack thereof) of environmental laws, regulations, and policies.

### *Significance Criteria*

An impact to socioeconomics and environmental justice would be considered significant if one or more of the following occur as a result of the proposed alternatives:

- Socioeconomic effects are evaluated in terms of their direct effects on the local economy and related effects on other socioeconomic resources, such as housing and community services. The magnitude of potential impacts can vary greatly depending on the location and characteristics of the proposed activities. An impact to socioeconomics and environmental justice would be considered significant if, as a result of the proposed alternatives, environmental justice impacts would involve disproportionately high and negative human health or environmental effects on minority and low-income populations.
- Environmental justice impacts would involve disproportionately high and negative human health or environmental effects on minority and low-income populations.

#### **4.7.1 Proposed Action**

This action would create a short-term increase of personnel on and around the base during construction due to creation of jobs. This would be a minor positive increase in the local socioeconomic resources as there would be creation of jobs and increased use of hotels and businesses surrounding the base.

There would be no affect on minority and low-income personnel at Langley AFB or the surrounding area. The proposed new facility would relocate existing personnel and Air Force operations on base, but it would not impact the surrounding area.

#### **4.7.2 Alternative A**

Alternative A would have the same impact as the Proposed Action on the socioeconomic and environmental justice. The building construction would be of equal size and would require the same amount of personnel creating a minor positive short-term increase in the regional socioeconomics. There would be no affect to minority and low-income personnel at Langley AFB or the surrounding area.

#### **4.7.3 No Action Alternative**

The No Action Alternative would have no impact on the socioeconomic resources of the area and would have no impact on minority and low-income personnel at Langley AFB and the Hampton Roads area. There would be no change to the current conditions, as no construction or relocation of personnel on or off base would occur.

### **4.8 Noise**

Noise levels are measured using DNL, measured in dBA, measured on the A-weighting filter. DNL less than 65 dBA are considered a safe level, similar to noise levels in an urban environment. Items of evaluation include the level of noise generated and activity interference of the proposed and alternatives.

#### *Significance Criteria*

The following forms the basis for evaluating the significance of noise effects:

- The degree to which noise levels generated by construction were higher than the ambient noise levels
- The degree to which there is annoyance and/or activity interference
- The exposure of noise-sensitive receptors to noise levels above 65 dBA

#### **4.8.1 Proposed Action**

This action would create minor short-term increases in noise levels from the heavy machinery use during construction of the facility and associated infrastructure. The increased levels would be insignificant as compared to the overall noise environment at Langley AFB. The noise levels would depend on the distance of the receptor from the construction area, the type of machinery being operated, and the duration of use of the machinery.

The proposed construction would relocate personnel from various communications buildings around the base to the North Base Support Area, an influx of approximately 430 people to the proposed area. This would alter the vehicular traffic and associated activities of the personnel, which would potentially create a minor long-term decrease in noise levels at the locations of the buildings from which personnel are being relocated, as well as a minor-long term increase in noise levels in the North Base Support Area. There

would be no change in the location of the noise contours. The area is currently located between the 70 and 75 dBA contours. The Proposed Action would not create long-term noise increases in the area.

#### **4.8.2 Alternative A**

This Alternative would similarly have minor short-term impacts on the noise levels from construction as the Proposed Action. The increased levels would be insignificant as compared to the overall noise environment at Langley AFB. The noise levels would depend on the distance of the receptor from the construction area, the type of machinery being operated, and the duration of use of the machinery.

The proposed construction of Alternative A would also relocate the same amount of personnel from various communications buildings around the base to the new facility, altering the vehicular traffic and associated activities. This would potentially create a minor long-term decrease in noise levels at the locations of the buildings from which personnel are being relocated, as well as a minor-long term increase in noise levels at the new facilities location. There would be no change in the location of the noise contours. The area is currently located between the 70 and 75 dBA contours. The Alternative would not create long-term noise increases in the area.

#### **4.8.3 No Action Alternative**

The No Action Alternative would have no impacts to the existing noise environment. Under this Alternative, there would be no construction, no relocation of personnel, and no changes in traffic patterns. No new short- or long-term noise sources would be created and the Langley AFB noise levels would not be altered.

### **4.9 Safety and Occupational Health**

Impacts to health and safety can occur during the implementation if there are activities that place risk on the safety of the person performing the task and those who are affected. Steps can be taken to mitigate health and safety risks.



### *Significance Criteria*

Numerous federal, civil, and military laws and regulations govern operations at Langley AFB. Individually and collectively, they prescribe measures, processes, and procedures required to ensure safe operations and to protect the public, military, and property. These regulations govern all aspects of the daily activity of the base, and their applicability ranges from standard industrial ground safety requirements, such as wearing of hard hats and safety clothing, to complex procedures concerning helicopter landings and departures.

#### **4.9.1 Proposed Action**

This action would create working conditions in and around the construction activities that would require proper safety precautions, use of heavy machinery, equipment, resources, and use and removal of hazardous materials. These would be no different than working conditions in any other construction project. The personnel and/or organization performing any construction or maintenance on the proposed property would be required to work within the federal, state, and local safety and health regulations.

The actions associated with the Proposed Action would not create any long-term changes in safety or occupational health. But with potential creation of light industrial and administrative use at the new facility, there would be a potential increase in unsafe working conditions and therefore, an increase in regulating safety.

#### **4.9.2 Alternative A**

Due to the similarity of the construction with the Proposed Action, Alternative A would create the same working conditions requiring proper safety precautions, use of heavy machinery, equipment, resources, and the use and removal of hazardous substances. This Alternative would not create any long-term changes in safety or occupational health on Langley AFB.

#### **4.9.3 No Action Alternative**

The No Action Alternative would have no change on the current safety and occupational health conditions at Langley AFB. There would be no construction, no relocation of Air Force operations, and no change in the amount of working conditions that are required to follow the federal, state, and local laws pertaining to unsafe working conditions.

This page intentionally left blank.

## **5.0 CUMULATIVE EFFECTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

NEPA requires an analysis of cumulative impacts on nonrenewable resources as well as irreversible and irretrievable commitments of resources involved in the Proposed Action. This chapter provides a definition of cumulative effects, a description of past, present, and reasonably foreseeable actions relevant to cumulative effects, an analysis of cumulative impacts, and any irreversible and irretrievable commitment of resources. This includes the irreversible effects from the destruction of a specific resource, such as energy or minerals. This also includes the irretrievable resource commitments involving the loss in value of resources that cannot be restored, such as the extinction of a threatened or endangered species or the loss or disturbance of a culturally significant location.

### **5.1 Cumulative Impacts**

#### **5.1.1 Definition of Cumulative Impacts**

The Council on Environmental Quality regulations stipulate that the cumulative effects analysis within an EA should consider the potential environmental impacts resulting from “the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions” (40 CFR 1508.7). Cumulative impacts are most likely presented when there is a conflict or relationship between a proposed action and another action expected to occur in or adjacent to the location of the proposed action. Actions that occur within the geographic boundaries of the proposed action or occur during the time period of the proposed action would present a higher potential for cumulative impacts. To identify cumulative impacts, the analysis needs to address three fundamental questions:

1. Does a relationship exist such that affected resource areas of the proposed action might interact with the affected resource areas of past, present, or reasonably foreseeable actions?
2. If one or more of the affected resources areas of the proposed action and another action could be expected to interact, would the proposed action affect or be affected by impacts of the other action?

3. If such a relationship exists, then does an assessment reveal any potentially significant impacts not identified when the proposed action is considered alone?

### **5.1.2 Past, Present, and Reasonably Foreseeable Actions**

The Proposed Action includes the construction of the consolidated communications facility, construction of a loading dock, miscellaneous storage space, auditorium, copier/plotter rooms, conference rooms, NIPR/SIPRNet generators, and break areas, adjoining parking lots, and will include the redirection of traffic patterns in the area. The action is part of the North Base Support Area Development Program which has several goals and plans to revitalize the area with new developments. In the event of a change in Langley AFB's mission or in plans to the North Base Support ADP, there would be a potential change in land use, construction, and/or number of personnel relocated to this area. This would lead to potential changes in construction altering the amount of new land use. Since a major change in Langley AFB's mission or the plans for the North Base Support ADP is not anticipated in the near future, this is not a reasonably foreseeable action.

Other reasonably foreseeable actions occurring adjacent to or in the North Base Support Area include:

- Rehabilitate the exterior shell of Buildings 1004 and 1007. Use these buildings for unconditioned storage for 1 CS supplies (e.g., cable reels, and limited administrative space).
- Demolish Building 1001.
- Coordinate development of the North Base Support Area with the construction of the new Indoor Combat Arms Range.
- Align Roma Road to better connect it with South Roma Road in the LTA Housing Area. Extend North Roma Road improvements to provide access to Buildings 1004 and 1007. Remove the section of Smythe Road in front of Building 1025 to enhance force protection and circulation.
- Extend Clarke Avenue to the west past Roma Road to access the parking between Buildings 1026 and 1027 and eliminate that section of Weyland Road.
- Construct new off-street parking lots to the east and south of the new 1 CS building. Add an additional double-loaded aisle of parking to the lot shared by Buildings 1025 and 1026. Reconfigure the parking adjacent to the north end of Building 1025 to accommodate military vehicles, outdoor storage, and mobilization needs.

- Eliminate the road between the antenna training site and the alley behind the housing on Watts Avenue, restoring the area to wetland status.
- Provide additional landscape buffering between the new North Base Support Area and the adjacent housing.
- Fence the paved area at the north end of Building 1025 to provide secure military vehicle and equipment storage as a force protection measure.

### **5.1.3 Analysis of Cumulative Impacts**

The key issues and primary resource areas of interest in this EA are short-term effects to noise levels, storm water, and improvements in land use on the North Base Support area. The cumulative impacts of the Proposed Action and Alternatives on the other resource area would be negligible with little to no long-term loss or commitment of resources. The combination of impacts from the Proposed Action and Alternatives and the past, present, and reasonably foreseeable actions would be negligible. Overall, the Proposed Action and Alternatives would have similar minor impacts on the environment as compared to the existing conditions at Langley AFB, except for the changes in land use to the North Base Support area.

## **5.2 Irreversible and Irretrievable Commitment of Resources**

The Proposed Action construction would require the use of heavy machinery, fuels, and other materials. This would create an irretrievable, but not irreversible, commitment of resources including fuels, concrete, steel, and other construction materials. The amount of fuel that would be used would represent a negligible amount of fuel used at Langley AFB for Air Force operations. The amount of construction material used would be negligible compared to the amount of construction material that is used each day in the Hampton Roads, Virginia area. With the potential improvement in the aesthetics, transportation, and land use the Proposed Action would represent a positive cumulative impact on the environment of Langley AFB.

Alternative A would have the same negligible commitment of resources as the Proposed Action. This Alternative would commit the same irreversible and irretrievable resources, as it would be the construction of the same building, only in a different location. Alternative A would not be included as part of the North Base Area Development Plan to improve aesthetics, transportation, and land use and would include the removal of current recreational land use areas.

The No Action Alternative would result in no change in the commitment of resources, resulting in no irreversible or irretrievable commitment of resources.

## 6.0 REFERENCES

Baie, Laura, Community Planner, Langley AFB, 2003. Personal Communication with Richard McKissock, November 20.

EPA, 1995. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1: *Stationary Point and Area Sources*, <http://www.epa.gov/ttn/chief/ap42/index.html>.

EPA, 2003. Green Book Federal Register, <http://www.epa.gov/oar/oaqps/greenbk/index.html>.

EPA, 2003. Terminology Reference System. <http://www.epa.gov/trs/>.

EPA, 2004a. Technology Transfer Network, National Ambient Air Quality Standards, <http://www.epa.gov/ttn/naaqs/>.

EPA, 2004b. Terms of the Environment, <http://www.epa.gov/OCEPaterms/>.

EPA, 2004c. 8-Hour Ozone State/Area/County Report, as of May 17, 2004, <http://www.epa.gov/oar/oaqps/greenbk/gncs.html#VIRGINIA>.

Federal Facilities Assessment Branch, Division of Health Assessment and Consultation, Agency for Toxic Substances and Disease Registry, 1998. *Public Health Assessment, Langley AFB and NASA Langley Research Center*. Hampton, York County, VA. [http://www.atsdr.cdc.gov/HAC/PHA/langley/ula\\_p1.html#natural](http://www.atsdr.cdc.gov/HAC/PHA/langley/ula_p1.html#natural).

Hampton City, 2004. Hampton City, Virginia Statistics and Demographics, <http://hampton.areaconnect.com/statistics.htm>.

Langley AFB, 1997. *Air Installation Compatible Use Zone (AICUZ) Program*.

Langley AFB 1998a. *Architecture Compatibility Standards*.

Langley AFB, 1998b. *Integrated Natural Resource Management Plan*.

Langley AFB, 2000a. *Langley AFB General Plan, Electronic Planning Information Center*.

Langley AFB, 2000b. *North Base Support Area ADP*. Langley AFB, VA.

Langley AFB, 2001a. *Langley AFB Hazardous Waste Management Plan*. 1<sup>st</sup> Fighter Wing, Langley AFB, VA,

Langley AFB, 2001b. *Langley AFB Management Action Plan*. Langley AFB, Virginia, December.

Langley AFB, 2004c. *Cultural Resource Management Plan*.

Microsoft's Streets and Trips, 2001.

U.S. Census Bureau, 2003a. State and County *QuickFacts*, Hampton, VA.  
<http://quickfacts.census.gov/qfd/states/51/51650.html>.

U.S. Census Bureau, 2003b. Poverty: 2000 Highlights.  
<http://www.census.gov/hhes/poverty/poverty00/pov00hi.html>.

U.S. Department of Health and Human Services (HHS), 2003. The 2003 HHS Poverty Guidelines.  
<http://aspe.hhs.gov/poverty/03poverty.htm>.

U.S. Fish and Wildlife Service (USFWS), 2004. Environmental Assessment Correspondence, January 21.

Virginia Department of Conservation and Recreation (DCR), 2004a. Environmental Response Correspondence, January 29.

Virginia Department of Conservation and Recreation, 2004b. Virginia's Erosion and Sediment Control Program, <http://www.dcr.state.va.us/sw/e&s.htm>.

Virginia Department of Environmental Quality (VDEQ), 2004a. <http://www.deq.state.va.us/>.

VDEQ, 2004b. Environmental Impact Review, Federal Consistency Reviews,  
<http://www.deq.state.va.us/eir/federal.html>.

VDEQ, 2004c. Environmental Response and Scoping correspondence, January 29.

Virginia Department of Game and Inland Fisheries, 2004. Environmental Response Correspondence, February 4.

Virginia Regulatory Town Hall, 2004. Virginia Department of Planning and Budget,  
<http://www.townhall.state.va.us/>.

Wittkamp, Tom, Program Manager, Langley AFB, 2003. Personal Communication with Richard McKissock, November 20.



## 7.0 LIST OF PREPARERS

Table 7-1  
List of Preparers

Name	Degree	Contribution	Years of Experience
Gloria Hagge J.M. Waller Associates	M.S. Urban Planning B.S. Biology	Chapters 1 and 2 QA/QC	29
Richard McKissock J.M. Waller Associates	M.S. Geology B.S. Earth Sciences	Project Manager Chapters 3-7	6
Kimberly Brown J.M. Waller Associates	B.S. Environmental Science	ICEP Scoping Letters QA/QC	2
Albertina Dowe J.M. Waller Associates	B.M. Music Industry/Education	QA/QC	2
Joe Fleming, P.E. J.M. Waller Associates	B.S. Environmental Engineering	Chapters 3 and 4 Appendix C	15

This page intentionally left blank.

# APPENDIX A

01 December 2003

Ms. Ellie Irons  
Program Manager  
Office of Environmental Impact Review  
Department of Environmental Quality  
629 East Main Street, Room 631  
Richmond, VA 23219

Dear Ms. Irons:

Langley AFB, Virginia is planning a consolidation of the base communications facility in the northern area of the base. Figure 1, location map of Langley AFB, and Figure 2, proposed site map are enclosed for your information. This new construction proposal would include the following:

- Construction of the new consolidated communications facility (40,000 SF);
- Construction of adjoining parking lots;
- Redirection of traffic patterns in the area; and
- Construction of a loading dock, miscellaneous storage space, auditorium, copier/plotter rooms, conference rooms, NIPR/SIPRNet generators, and break areas.

The following existing facilities would be relocated to the new Consolidated Communications Facility:

- #407: COMSEC vault, Engineering and associated storage area, Secure Compartmented Information Facility, Network Operations Center, Stan/Eval, Mobility/Readiness, Material Control, Server farm, SCB switch area, Core services, DigiCom, Network Management System/Base Information Protection, Network Control Center, Info Assurance, Info Protection Services Squadron and Flight headquarters admin/office areas, classrooms/training areas, customer service;
- #775: ADPE and CITS storage, Forms and Pubs, BITC Records management, WGM Training, Internet/Intranet, Plans and Programs, LMR, Orderly Room, Squadron and Flight admin areas, classrooms, training areas, customer service, Heritage area;
- #788: Photo studio, dressings rooms, lab space, customer service area;
- #1025: METNAV (other current functions remain in Building 1025);
- #1388: Telephone systems;
- #1389: Ground-Air Transmitter-Receiver/Ground Radio;

On behalf of Langley AFB, J.M. Waller Associates, Inc. is preparing an environmental assessment to address the potential environmental and socioeconomic impacts to this proposal. This environmental assessment is being prepared in compliance with the Council on Environmental Quality (CEQ) regulations that implement the National Environmental Policy Act

(NEPA). It is also complying with Air Force Instruction 32-7061, *The Environmental Impact Analysis Process*.

We would appreciate your written comments, within 20 days, of any concerns that you may have regarding this proposal. In addition, we ask that you provide this letter and attachment to any other agency/organization that you feel may have an interest. We are also attaching a mailing list of those agencies receiving this letter describing the proposal.

If you have any questions, please contact me at (202) 321-5019 or Mr. Thomas Wittkamp (Langley AFB, Environmental Management Flight) at (757) 764-1135. Thank you for your assistance.

Sincerely,



Richard P. McKissock  
Project Manager  
J.M. Waller Associates, Inc.

2 Enclosures:

1. Figures 1 (Langley AFB site map)  
And Figure 2 (Project Site Map)
2. Mailing List

01 December 2003

Ms. Shirl Dressler  
VA Department of Game and Inland Fisheries  
4010 West Broad Street  
Richmond, VA 23230

Dear Ms. Dressler:

Langley AFB, Virginia is planning a consolidation of the base communications facility in the northern area of the base. Figure 1, location map of Langley AFB, and Figure 2, proposed site map are enclosed for your information. This new construction proposal would include the following:

- Construction of the new consolidated communications facility (40,000 SF);
- Construction of adjoining parking lots;
- Redirection of traffic patterns in the area; and
- Construction of a loading dock, miscellaneous storage space, auditorium, copier/plotter rooms, conference rooms, NIPR/SIPRNet generators, and break areas.

The following existing facilities would be relocated to the new Consolidated Communications Facility:

- #407: COMSEC vault, Engineering and associated storage area, Secure Compartmented Information Facility, Network Operations Center, Stan/Eval, Mobility/Readiness, Material Control, Server farm, SCB switch area, Core services, DigiCom, Network Management System/Base Information Protection, Network Control Center, Info Assurance, Info Protection Services Squadron and Flight headquarters admin/office areas, classrooms/training areas, customer service;
- #775: ADPE and CITS storage, Forms and Pubs, BITC Records management, WGM Training, Internet/Intranet, Plans and Programs, LMR, Orderly Room, Squadron and Flight admin areas, classrooms, training areas, customer service, Heritage area;
- #788: Photo studio, dressings rooms, lab space, customer service area;
- #1025: METNAV (other current functions remain in Building 1025);
- #1388: Telephone systems;
- #1389: Ground-Air Transmitter-Receiver/Ground Radio;

On behalf of Langley AFB, J.M. Waller Associates, Inc. is preparing an environmental assessment to address the potential environmental and socioeconomic impacts to this proposal. This environmental assessment is being prepared in compliance with the Council on Environmental Quality (CEQ) regulations that implement the National Environmental Policy Act (NEPA). It is also complying with Air Force Instruction 32-7061, *The Environmental Impact Analysis Process*.

We would appreciate your written comments, within 20 days, of any concerns that you may have regarding this proposal.

If you have any questions, please contact me at (202) 321-5019 or Mr. Thomas Wittkamp (Langley AFB, Environmental Management Flight) at (757) 764-1135. Thank you for your assistance.

Sincerely,

A handwritten signature in dark ink, appearing to read 'R.P. McKissock', with a stylized, cursive script.

Richard P. McKissock  
Project Manager  
J.M. Waller Associates, Inc.

Enclosure:  
Figure1 (Langley AFB site map)  
and Figure 2 (Project Site Map)

December 2003

Environmental Protection Agency - Region 3  
1650 Arch Street  
Philadelphia, PA 19112

Dear Sir or Madam:

Langley AFB, Virginia is planning a consolidation of the base communications facility in the northern area of the base. Figure 1, location map of Langley AFB, and Figure 2, proposed site map are enclosed for your information. This new construction proposal would include the following:

- Construction of the new consolidated communications facility (40,000 SF);
- Construction of adjoining parking lots;
- Redirection of traffic patterns in the area; and
- Construction of a loading dock, miscellaneous storage space, auditorium, copier/plotter rooms, conference rooms, NIPR/SIPRNet generators, and break areas.

The following existing facilities would be relocated to the new Consolidated Communications Facility:

- #407: COMSEC vault, Engineering and associated storage area, Secure Compartmented Information Facility, Network Operations Center, Stan/Eval, Mobility/Readiness, Material Control, Server farm, SCB switch area, Core services, DigiCom, Network Management System/Base Information Protection, Network Control Center, Info Assurance, Info Protection Services Squadron and Flight headquarters admin/office areas, classrooms/training areas, customer service;
- #775: ADPE and CITS storage, Forms and Pubs, BITC Records management, WGM Training, Internet/Intranet, Plans and Programs, LMR, Orderly Room, Squadron and Flight admin areas, classrooms, training areas, customer service, Heritage area;
- #788: Photo studio, dressings rooms, lab space, customer service area;
- #1025: METNAV (other current functions remain in Building 1025);
- #1388: Telephone systems;
- #1389: Ground-Air Transmitter-Receiver/Ground Radio;

On behalf of Langley AFB, J.M. Waller Associates, Inc. is preparing an environmental assessment to address the potential environmental and socioeconomic impacts to this proposal. This environmental assessment is being prepared in compliance with the



Council on Environmental Quality (CEQ) regulations that implement the National Environmental Policy Act (NEPA). It is also complying with Air Force Instruction 32-7061, *The Environmental Impact Analysis Process*.

We would appreciate your written comments, within 20 days, of any concerns that you may have regarding this proposal.

If you have any questions, please contact me at (202) 321-5019 or Mr. Thomas Wittkamp (Langley AFB, Environmental Management Flight) at (757) 764-1135. Thank you for your assistance.

Sincerely,

A handwritten signature in dark ink, appearing to read 'R. P. McKissock', written in a cursive style.

Richard P. McKissock  
Project Manager  
J.M. Waller Associates, Inc.

Enclosure:  
Figure1 (Langley AFB site map)  
and Figure 2 (Project Site Map)03-2029

December 2003

Mr. Keith Tignor  
VA Department of Agricultural and Consumer Services  
Office of Endangered Species Coordination  
1100 Bank Street  
Richmond, VA 23219

Dear Mr. Tignor:

Langley AFB, Virginia is planning a consolidation of the base communications facility in the northern area of the base. Figure 1, location map of Langley AFB, and Figure 2, proposed site map are enclosed for your information. This new construction proposal would include the following:

- Construction of the new consolidated communications facility (40,000 SF);
- Construction of adjoining parking lots;
- Redirection of traffic patterns in the area; and
- Construction of a loading dock, miscellaneous storage space, auditorium, copier/plotter rooms, conference rooms, NIPR/SIPRNet generators, and break areas.

The following existing facilities would be relocated to the new Consolidated Communications Facility:

- #407: COMSEC vault, Engineering and associated storage area, Secure Compartmented Information Facility, Network Operations Center, Stan/Eval, Mobility/Readiness, Material Control, Server farm, SCB switch area, Core services, DigiCom, Network Management System/Base Information Protection, Network Control Center, Info Assurance, Info Protection Services Squadron and Flight headquarters admin/office areas, classrooms/training areas, customer service;
- #775: ADPE and CITS storage, Forms and Pubs, BITC Records management, WGM Training, Internet/Intranet, Plans and Programs, LMR, Orderly Room, Squadron and Flight admin areas, classrooms, training areas, customer service, Heritage area;
- #788: Photo studio, dressings rooms, lab space, customer service area;
- #1025: METNAV (other current functions remain in Building 1025);
- #1388: Telephone systems;
- #1389: Ground-Air Transmitter-Receiver/Ground Radio;

On behalf of Langley AFB, J.M. Waller Associates, Inc. is preparing an environmental assessment to address the potential environmental and socioeconomic impacts to this proposal. This environmental assessment is being prepared in compliance with the Council on Environmental Quality (CEQ) regulations that implement the National Environmental Policy Act (NEPA). It is also complying with Air Force Instruction 32-7061, *The Environmental Impact Analysis Process*.

We would appreciate your written comments, within 20 days, of any concerns that you may have regarding this proposal.

If you have any questions, please contact me at (202) 321-5019 or Mr. Thomas Wittkamp (Langley AFB, Environmental Management Flight) at (757) 764-1135. Thank you for your assistance.

Sincerely,

A handwritten signature in dark ink, appearing to read 'R.P. McKissock', with a stylized, cursive script.

Richard P. McKissock  
Project Manager  
J.M. Waller Associates, Inc.

Enclosure:  
Figure1 (Langley AFB site map)  
and Figure 2 (Project Site Map)

December 2003

Ms. Rene Hypes  
VA Department of Conservation and Recreation  
Division of Natural Heritage  
217 Governor Street, Third Floor  
Richmond, VA 23219

Dear Ms. Hypes:

Langley AFB, Virginia is planning a consolidation of the base communications facility in the northern area of the base. Figure 1, location map of Langley AFB, and Figure 2, proposed site map are enclosed for your information. This new construction proposal would include the following:

- Construction of the new consolidated communications facility (40,000 SF);
- Construction of adjoining parking lots;
- Redirection of traffic patterns in the area; and
- Construction of a loading dock, miscellaneous storage space, auditorium, copier/plotter rooms, conference rooms, NIPR/SIPRNet generators, and break areas.

The following existing facilities would be relocated to the new Consolidated Communications Facility:

- #407: COMSEC vault, Engineering and associated storage area, Secure Compartmented Information Facility, Network Operations Center, Stan/Eval, Mobility/Readiness, Material Control, Server farm, SCB switch area, Core services, DigiCom, Network Management System/Base Information Protection, Network Control Center, Info Assurance, Info Protection Services Squadron and Flight headquarters admin/office areas, classrooms/training areas, customer service;
- #775: ADPE and CITS storage, Forms and Pubs, BITC Records management, WGM Training, Internet/Intranet, Plans and Programs, LMR, Orderly Room, Squadron and Flight admin areas, classrooms, training areas, customer service, Heritage area;
- #788: Photo studio, dressings rooms, lab space, customer service area;
- #1025: METNAV (other current functions remain in Building 1025);
- #1388: Telephone systems;
- #1389: Ground-Air Transmitter-Receiver/Ground Radio;

On behalf of Langley AFB, J.M. Waller Associates, Inc. is preparing an environmental assessment to address the potential environmental and socioeconomic impacts to this proposal. This environmental assessment is being prepared in compliance with the Council on Environmental Quality (CEQ) regulations that implement the National Environmental Policy Act (NEPA). It is also complying with Air Force Instruction 32-7061, *The Environmental Impact Analysis Process*.

We would appreciate your written comments, within 20 days, of any concerns that you may have regarding this proposal.

If you have any questions, please contact me at (202) 321-5019 or Mr. Thomas Wittkamp (Langley AFB, Environmental Management Flight) at (757) 764-1135. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "R. P. McKissock", with a stylized flourish at the end.

Richard P. McKissock  
Project Manager  
J.M. Waller Associates, Inc.

Enclosure:  
Figure1 (Langley AFB site map)  
and Figure 2 (Project Site Map)

December 2003

Mr. Don L. Klima  
Advisory Council on Historic Preservation  
1100 Pennsylvania Avenue, NW, #809  
Washington, DC 20004

Dear Mr. Klima:

Langley AFB, Virginia is planning a consolidation of the base communications facility in the northern area of the base. Figure 1, location map of Langley AFB, and Figure 2, proposed site map are enclosed for your information. This new construction proposal would include the following:

- Construction of the new consolidated communications facility (40,000 SF);
- Construction of adjoining parking lots;
- Redirection of traffic patterns in the area; and
- Construction of a loading dock, miscellaneous storage space, auditorium, copier/plotter rooms, conference rooms, NIPR/SIPRNet generators, and break areas.

The following existing facilities would be relocated to the new Consolidated Communications Facility:

- #407: COMSEC vault, Engineering and associated storage area, Secure Compartmented Information Facility, Network Operations Center, Stan/Eval, Mobility/Readiness, Material Control, Server farm, SCB switch area, Core services, DigiCom, Network Management System/Base Information Protection, Network Control Center, Info Assurance, Info Protection Services Squadron and Flight headquarters admin/office areas, classrooms/training areas, customer service;
- #775: ADPE and CITS storage, Forms and Pubs, BITC Records management, WGM Training, Internet/Intranet, Plans and Programs, LMR, Orderly Room, Squadron and Flight admin areas, classrooms, training areas, customer service, Heritage area;
- #788: Photo studio, dressings rooms, lab space, customer service area;
- #1025: METNAV (other current functions remain in Building 1025);
- #1388: Telephone systems;
- #1389: Ground-Air Transmitter-Receiver/Ground Radio;

On behalf of Langley AFB, J.M. Waller Associates, Inc. is preparing an environmental assessment to address the potential environmental and socioeconomic impacts to this proposal. This environmental assessment is being prepared in compliance with the Council on Environmental Quality (CEQ) regulations that implement the National Environmental Policy Act (NEPA). It is also complying with Air Force Instruction 32-7061, *The Environmental Impact Analysis Process*.

We would appreciate your written comments, within 20 days, of any concerns that you may have regarding this proposal.

If you have any questions, please contact me at (202) 321-5019 or Mr. Thomas Wittkamp (Langley AFB, Environmental Management Flight) at (757) 764-1135. Thank you for your assistance.

Sincerely,

A handwritten signature in dark ink, appearing to read 'R. P. McKissock', with a stylized flourish at the end.

Richard P. McKissock  
Project Manager  
J.M. Waller Associates, Inc.

Enclosure:  
Figure1 (Langley AFB site map)  
and Figure 2 (Project Site Map)

12 December 2003

Mr. John Evans  
Norfolk District Corps of Engineers  
803 Front Street  
Norfolk, VA 23510

Dear Mr. Evans:

Langley AFB, Virginia is planning a consolidation of the base communications facility in the northern area of the base. Figure 1, location map of Langley AFB, and Figure 2, proposed site map are enclosed for your information. This new construction proposal would include the following:

- Construction of the new consolidated communications facility (40,000 SF);
- Construction of adjoining parking lots;
- Redirection of traffic patterns in the area; and
- Construction of a loading dock, miscellaneous storage space, auditorium, copier/plotter rooms, conference rooms, NIPR/SIPRNet generators, and break areas.

The following existing facilities would be relocated to the new Consolidated Communications Facility:

- #407: COMSEC vault, Engineering and associated storage area, Secure Compartmented Information Facility, Network Operations Center, Stan/Eval, Mobility/Readiness, Material Control, Server farm, SCB switch area, Core services, DigiCom, Network Management System/Base Information Protection, Network Control Center, Info Assurance, Info Protection Services Squadron and Flight headquarters admin/office areas, classrooms/training areas, customer service;
- #775: ADPE and CITS storage, Forms and Pubs, BITC Records management, WGM Training, Internet/Intranet, Plans and Programs, LMR, Orderly Room, Squadron and Flight admin areas, classrooms, training areas, customer service, Heritage area;
- #788: Photo studio, dressings rooms, lab space, customer service area;
- #1025: METNAV (other current functions remain in Building 1025);
- #1388: Telephone systems;
- #1389: Ground-Air Transmitter-Receiver/Ground Radio;



On behalf of Langley AFB, J.M. Waller Associates, Inc. is preparing an environmental assessment to address the potential environmental and socioeconomic impacts to this proposal. This environmental assessment is being prepared in compliance with the Council on Environmental Quality (CEQ) regulations that implement the National Environmental Policy Act (NEPA). It is also complying with Air Force Instruction 32-7061, *The Environmental Impact Analysis Process*.

We would appreciate your written comments, within 20 days, of any concerns that you may have regarding this proposal.

If you have any questions, please contact me at (202) 321-5019 or Mr. Thomas Wittkamp (Langley AFB, Environmental Management Flight) at (757) 764-1135. Thank you for your assistance.

Sincerely,

A handwritten signature in dark ink, appearing to read 'R. P. McKissock', written in a cursive style.

Richard P. McKissock  
Project Manager  
J.M. Waller Associates, Inc.

Enclosure:  
Figure1 (Langley AFB site map)  
and Figure 2 (Project Site Map)

December 2003

Ms. Susan Smead  
State Historic Preservation Office  
2801 Kensington Avenue  
Richmond, VA 23221

Dear Ms. Smead:

Langley AFB, Virginia is planning a consolidation of the base communications facility in the northern area of the base. Figure 1, location map of Langley AFB, and Figure 2, proposed site map are enclosed for your information. This new construction proposal would include the following:

- Construction of the new consolidated communications facility (40,000 SF);
- Construction of adjoining parking lots;
- Redirection of traffic patterns in the area; and
- Construction of a loading dock, miscellaneous storage space, auditorium, copier/plotter rooms, conference rooms, NIPR/SIPRNet generators, and break areas.

The following existing facilities would be relocated to the new Consolidated Communications Facility:

- #407: COMSEC vault, Engineering and associated storage area, Secure Compartmented Information Facility, Network Operations Center, Stan/Eval, Mobility/Readiness, Material Control, Server farm, SCB switch area, Core services, DigiCom, Network Management System/Base Information Protection, Network Control Center, Info Assurance, Info Protection Services Squadron and Flight headquarters admin/office areas, classrooms/training areas, customer service;
- #775: ADPE and CITS storage, Forms and Pubs, BITC Records management, WGM Training, Internet/Intranet, Plans and Programs, LMR, Orderly Room, Squadron and Flight admin areas, classrooms, training areas, customer service, Heritage area;
- #788: Photo studio, dressings rooms, lab space, customer service area;
- #1025: METNAV (other current functions remain in Building 1025);
- #1388: Telephone systems;
- #1389: Ground-Air Transmitter-Receiver/Ground Radio;

On behalf of Langley AFB, J.M. Waller Associates, Inc. is preparing an environmental assessment to address the potential environmental and socioeconomic impacts to this proposal. This environmental assessment is being prepared in compliance with the Council on Environmental Quality (CEQ) regulations that implement the National Environmental Policy Act (NEPA). It is also complying with Air Force Instruction 32-7061, *The Environmental Impact Analysis Process*.

We would appreciate your written comments, within 20 days, of any concerns that you may have regarding this proposal.

If you have any questions, please contact me at (202) 321-5019 or Mr. Thomas Wittkamp (Langley AFB, Environmental Management Flight) at (757) 764-1135. Thank you for your assistance.

Sincerely,

A handwritten signature in dark ink, appearing to read 'R. P. McKissock', written in a cursive style.

Richard P. McKissock  
Project Manager  
J.M. Waller Associates, Inc.

Enclosure:  
Figure1 (Langley AFB site map)  
and Figure 2 (Project Site Map)

## **APPENDIX B**



## COMMONWEALTH of VIRGINIA

W. Tayloe Murphy, Jr.  
Secretary of Natural Resources

Department of Game and Inland Fisheries

William L. Woodfin, Jr.  
Director

February 4, 2004

Richard P. McKissock  
Project Manager  
J. M. Waller Associates  
11828 Canon Boulevard, Suite A  
Newport News, Virginia 23606-2554

RE: ESSLOG #19332, Langley Air Force Base – Consolidation of Base Communications Facility, Hampton, VA.

Dear Mr. McKissock:

This letter is in response to your request for information related to the presence of threatened or endangered species in the vicinity of the above referenced project.

**The state endangered canebrake rattlesnake (*Crotalus horridus*) has been documented approximately 1.75 miles from the project area. Therefore, the applicant should coordinate with this Department by contacting the Region 1 Wildlife Diversity Biologist, Don Schwab, at (757) 253-4180, concerning potential impacts to this species.** Also, the federal species of concern northern diamond-backed terrapin (*Malaclemys terrapin terrapin*) has been documented approximately 1.25 miles from the project area. As well, the following state special concern species have been documented approximately at the given distances from the project area:

- great egret (*Ardea alba*) at 0.25 mile;
- least tern (*Sterna antillarum*) at 0.5 mile;
- Forster's tern (*Sterna forsteri*) at 0.5 mile;
- Caspian tern (*Sterna caspia*) at 1.25 miles;
- northern harrier (*Circus cyaneus*) at 1.75 miles;
- saltmarsh sharp-tailed sparrow (*Ammodramus caudacutus*) at 1.75 miles; and
- yellow-crowned night heron (*Nyctanassa violacea*) at 2 miles.

However, the classifications of federal species of concern and state special concern are not legal designations and do not require further coordination.

Information about fish and wildlife species was generated from our agency's computerized Fish and Wildlife Information System, which describes animals that are known or may occur in a particular geographic area. Field surveys may be necessary to determine the presence or absence of some of these species on or near the proposed area. Also, additional sensitive animal species may be present, but their presence has not been documented in our information system.

Richard P. McKissock  
ESSLog #19332  
2/4/2004  
Page 2

Endangered plants and insects are under the jurisdiction of the Virginia Department of Agriculture and Consumer Services, Bureau of Plant Protection. Questions concerning sensitive plant and insect species occurring at the project site should be directed to Keith Tignor at (804) 786-8261.

There is a processing charge of \$50.00 for our response. Please remit a check, made payable to **TREASURER OF VIRGINIA**, within 30 days. To insure proper credit to your account, please address your payment envelope directly to MaryBeth Murr at the address listed in the letterhead.

This letter summarizes the likelihood of the occurrence of endangered or threatened animal species at the project site. If you have additional questions in this regard, please contact me at (804) 367-1185.

*Please note that the data used to develop this response are continually updated. Therefore, if significant changes are made to your project or if the project has not begun within 6 months of receiving this letter, then the applicant should request a new review of our data.*

The Fish and Wildlife Information Service, the system of databases used to provide the information in this letter, can now be accessed via the Internet! The Service currently provides access to current and comprehensive information about all of Virginia's fish and wildlife resources, including those listed as threatened, endangered, or special concern; colonial birds; waterfowl; trout streams; and all wildlife. Users can choose a geographic location and generate a

report of species known or likely to occur around that point. From our main web page, at [www.dgif.state.va.us](http://www.dgif.state.va.us), choose the hyperlinks to "Wildlife" then "Wildlife Information and Mapping Services", and then "Wildlife Information Online Service". For more information about the service, please contact Amy Martin, Online Service Coordinator, at (804) 367-2211.

Thank you for your interest in the wildlife resources of Virginia.

Sincerely,



Susan H. Watson  
Research Specialist Senior

cc: R.T. Fernald, VDGIF

**Virginia Department of Game and Inland Fisheries  
Wildlife Diversity Division  
Environmental Response Invoice**

<b>Date of Response:</b>	February 4, 2004	
<b>EssLog Number:</b>	19332	
<b>Project Name:</b>	Langley Air Force Base--Consolidation of Base Comm.Facility	
<b>Name of Respondent:</b>	Susan H. Watson	
<b>Name of Recipient:</b>	Richard P. McKissock	
<b>Company Affiliation:</b>	J. M. Waller Associates	
<b>Company Address:</b>	11828 Canon Blvd., Suite A, Newport News, VA 23606-2554	
<b>Recipient Phone #:</b>	757-223-5840	
	<b>Total Hourly Charges:</b>	\$ 50.00
	<b>Total Map Charges:</b>	\$ -
	<b>Diskettes and Copying Charges:</b>	\$ -
	<b>Total Other Charges:</b>	\$ -
	<b>Total Due:</b>	\$ 50.00

Please make checks payable to the **Treasurer of Virginia**.

Payment should be returned to:

Mary Beth Murr  
Virginia Department of Game and Inland Fisheries  
Wildlife Diversity Division  
4010 West Broad Street  
Richmond, VA 23230-1104

Questions concerning payment should be directed to the respondent above in the Fish and Wildlife Information Section at (804) 367-6913

**Please include a copy of this invoice with payment to ensure proper crediting of your account.**





## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Ecological Services  
6669 Short Lane  
Gloucester, VA 23061



January 21, 2004

Mr. Richard P. McKissock  
J. M. Waller Associates, Inc.  
11828 Canon Boulevard, Suite A  
Newport News, Virginia 23606-2554

Re: Langley Air Force Base  
Communications Facility  
Consolidation, #3240, Hampton,  
Virginia

Dear Mr. McKissock:

We have reviewed your January 14, 2004 request for information on federally listed and proposed endangered and threatened species and designated critical habitat for the above referenced project. The following comments are provided under provisions of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

Langley Air Force Base is planning a consolidation of the base communications facility in Hampton, Virginia. Based on the project description and location, it appears that this project is not likely to adversely affect any federally listed or proposed species or designated critical habitat. Should project plans change, or if additional information on the distribution of listed or proposed species or designated critical habitat becomes available, this determination may be reconsidered.

If you have any questions or need further assistance, please contact Eric Davis of this office at (804) 693-6694, extension 104.

Sincerely,

Karen L. Mayne  
Supervisor  
Virginia Field Office





## COMMONWEALTH of VIRGINIA

### DEPARTMENT OF ENVIRONMENTAL QUALITY

*Street address:* 629 East Main Street, Richmond, Virginia 23219

*Mailing address:* P.O. Box 10009, Richmond, Virginia 23240

Fax (804) 698-4500 TDD (804) 698-4021

[www.deq.state.va.us](http://www.deq.state.va.us)

W. Tayloe Murphy, Jr.  
Secretary of Natural Resources

Robert G. Burnley  
Director

(804) 698-4000  
1-800-592-5482

January 29, 2004

Mr. Richard P. McKissock  
Project Manager  
J. M. Waller Associates, Inc.  
11828 Canon Boulevard, Suite A  
Newport News, Virginia 23606

RE: Langley Air Force Base: Consolidation of Base Communications Facility

Dear Mr. McKissock:

Thank you for your January 12, 2004 letter (received January 27) regarding the proposed consolidation of the base communications facility at Langley Air Force Base and your preparation of an Environmental Assessment for same.

The Department of Environmental Quality's Office of Environmental Impact Review coordinates Virginia's review of National Environmental Policy Act (NEPA) documents and responds to appropriate federal officials on behalf of the Commonwealth. In addition, this Office is the lead agency for Virginia's review of federal consistency determinations and certifications submitted pursuant to the Coastal Zone Management Act.

#### Environmental Review and Scoping

Upon receipt of the copies of the Environmental Assessment or Environmental Impact Statement for this project, we will share the copies with selected Virginia state agencies, most of which are regularly involved in environmental reviews, and with the Hampton Roads Planning District Commission and the City of Hampton. We will solicit comments from these agencies and entities. The agencies are likely to include the following (starred (\*) agencies administer one or more of the Enforceable Programs of the Virginia Coastal Resources Management Program; see "Federal Consistency..." below):

Department of Environmental Quality:  
    Office of Environmental Impact Review\* (this Office)  
    Tidewater Regional Office\*  
    Water Division\*  
    Air Division\*  
    Waste Division  
Department of Game and Inland Fisheries\*  
Department of Conservation and Recreation\*  
Department of Agriculture and Consumer Services  
Department of Health\*  
Marine Resources Commission\*  
Department of Transportation  
Department of Historic Resources (section 106 contact)  
Department of Forestry  
Chesapeake Bay Local Assistance Department\*  
Hampton Roads Planning District Commission  
City of Hampton.

In order to ensure an effective coordinated review of the NEPA document and the consistency determination in the case of activities in coastal areas (see "Federal Consistency..." below), we will require 18 copies of the document for state agencies' review when it is published. In addition, unless copies are sent directly to the Hampton Roads Planning District Commission and the City of Hampton, we will need 2 extra copies (total of 20).

While this Office does not participate in scoping efforts beyond the advice given herein, other agencies are free to provide scoping comments concerning the NEPA document for the proposed project.

Federal Consistency under the Coastal Zone Management Act

Pursuant to the Coastal Zone Management Act of 1972, as amended, federal activities affecting Virginia's coastal resources or coastal uses must be consistent, to the maximum extent practicable, with the Virginia Coastal Resources Management Program (VCP) (see section 307(c)(1) of the Act and the Federal Consistency Regulations, 15 CFR Part 930, subpart C, sections 930.30 through 930.46). The consistency determination involves an analysis of the consistency of the proposed activities with the Enforceable Programs of the VCP (first enclosure). In addition, we invite your attention to the Advisory Policies of the VCP (second enclosure). The federal consistency determination may be provided as part of the NEPA documentation or independently, depending on your agency's preference. Section 930.39 of the Federal Consistency Regulations gives content requirements for the consistency determination. Virginia's

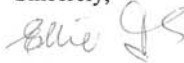
Mr. Richard P. McKissock  
Page 3

Federal Consistency Information Package, dated December 2001, gives guidance on consistency review in Virginia (see DEQ's web site, <http://www.deq.state.va.us/eir>, or contact this Office; see below).

If you have questions about the environmental review process or the federal consistency review process, please feel free to call Charles Ellis of this Office (telephone (804) 698-4488).

I hope this information is helpful to you.

Sincerely,



Ellie L. Irons  
Program Manager  
Office of Environmental Impact Review

Enclosures

cc: Harold J. Winer, DEQ-TRO  
Ellen Gilinsky, DEQ-Water  
Kotur S. Narasimhan, DEQ-Air  
Thomas D. Modena, DEQ-Waste  
Brian D. Moyer, DGIF  
Derral Jones, DCR  
Keith R. Tignor, VDACS  
Alan D. Weber, VDH  
Tony Watkinson, MRC  
J. Michael Foreman, DOF  
Ethel R. Eaton, DHR  
Catherine M. Harold, CBLAD  
David V. Grimes, VDOT  
John M. Carlock, Hampton Roads PDC  
Brian Ballard, City of Hampton  
Thomas Wittkamp, Langley AFB

W. Tayloe Murphy, Jr.  
Secretary of Natural  
Resources



Joseph H. Maroon  
Director

**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

217 Governor Street  
Richmond, Virginia 23219-2010  
Telephone (804) 786-7951 FAX (804) 371-2674 TDD (804) 786-2121

January 29, 2004

Richard McKissock  
J.M. Waller Associates, Inc.  
4427 Nebraska Ave., NW  
Washington, DC 20016

Re: Langley Air Force Base Communications Facility Consolidation

Dear Mr. McKissock:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the area outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Biotics documents the presence of natural heritage resources in the project area. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

In addition, our files do not indicate the presence of any State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

Any absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks additional natural heritage resources. New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

Due to an increasing number of requests and limiting staffing resources, effective July 1, 2003 DCR-DNH will require 30 days to comment on projects submitted for our review.

A fee of \$60.00 has been assessed for the service of providing this information. Please find enclosed an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, Department of Conservation and Recreation, 203 Governor Street, Suite 414, Richmond, VA 23219, ATTN: Cashier. Payment is due within thirty days of the invoice date.

*An Agency of the Natural Resources Secretariat*

Should you have any questions or concerns, feel free to contact me at 804-692-0984. Thank you for the opportunity to comment on this project.

Sincerely,

A handwritten signature in cursive script, appearing to read "Elizabeth Locklear".

Elizabeth Locklear  
Locality Liaison

# APPENDIX C

# Langley AFB, VA Consolidated Communications Facility Actual Air Emissions

Equipment Information	
APIMS ID:	Unknown
Building:	Unknown
Boiler ID:	Unknown
Heat Input (MMBtu/hr):	6.00
Permitted Source:	Unknown
Manufacturer:	Unknown
Model Number:	Unknown
Serial Number:	Unknown
Fuel Burned:	NG
Quantity of NG burned (cf/yr) <sup>1</sup> :	6,042,032
NG Heat Content (Btu/cf):	1,020

## Actual - Criteria Pollutants

Natural Gas External Combustion Sources			
Criteria Pollutant	NG Emission Factor <sup>2</sup> (lb/10 <sup>6</sup> cf)	Emissions (lb/yr)	Emissions (tpy)
PM	7.6	45.92	0.023
PM <sub>10</sub>	7.6	45.92	0.023
PM <sub>2.5</sub>	7.6	45.92	0.023
SO <sub>x</sub>	0.6	3.63	0.002
NO <sub>x</sub>	100	604.2	0.302
VOC	5.5	33.23	0.017
CO	84	507.5	0.254

## Actual - HAPs

Natural Gas External Combustion Sources			
HAP	NG Emission Factor <sup>2</sup> (lb/10 <sup>6</sup> cf)	Emissions (lb/yr)	Emissions (tpy)
Arsenic	2.00E-04	1.21E-03	6.04E-07
Beryllium	1.20E-05	7.25E-05	3.63E-08
Cadmium	1.10E-03	6.65E-03	3.32E-06
Chromium	1.40E-03	8.46E-03	4.23E-06
Cobalt	8.40E-05	5.08E-04	2.54E-07
Lead	5.00E-04	3.02E-03	1.51E-06
Manganese	3.80E-04	2.30E-03	1.15E-06
Mercury	2.60E-04	1.57E-03	7.85E-07
Nickel	2.10E-03	1.27E-02	6.34E-06
Selenium	2.40E-05	1.45E-04	7.25E-08
Benzene	2.10E-03	1.27E-02	6.34E-06
Formaldehyde	7.50E-02	4.53E-01	2.27E-04
Hexane	1.80E+00	1.09E+01	5.44E-03
Naphthalene	6.10E-04	3.69E-03	1.84E-06
POM	8.82E-05	5.33E-04	2.66E-07
Toluene	3.40E-03	2.05E-02	1.03E-05
<b>Total HAP</b>		<b>1.14E+01</b>	<b>5.70E-03</b>

1. PTE based on maximum allowable fuel usage by permit, prorated by heat input.

2. Emission Factors from AP-42, 5th Edition, July 1998, Table 1.4-1, Table 1.4-2, Table 1.4-3, Table 1.4-4.

## Langley AFB, VA Consolidated Communications Facility Potential Air Emissions

Equipment Information	
APIMS ID:	Unknown
Building:	Unknown
Boiler ID:	Unknown
Heat Input (MMBtu/hr):	6.00
Permitted Source:	Unknown
Manufacturer:	Unknown
Model Number:	Unknown
Serial Number:	Unknown
Fuel Burned:	NG
Quantity of NG burned (cf/yr) <sup>1</sup> :	23,642,732
NG Heat Content (Btu/cf):	1,020

### PTE - Criteria Pollutants

Natural Gas External Combustion Sources			
Criteria Pollutant	NG Emission Factor <sup>2</sup> (lb/10 <sup>6</sup> cf)	Emissions (lb/yr)	Emissions (tpy)
PM	7.6	179.68	0.090
PM <sub>10</sub>	7.6	179.68	0.090
PM <sub>2.5</sub>	7.6	179.68	0.090
SO <sub>x</sub>	0.6	14.19	0.007
NO <sub>x</sub>	100	2,364.3	1.182
VOC	5.5	130.04	0.065
CO	84	1986.0	0.993

### PTE - HAPs

Natural Gas External Combustion Sources			
HAP	NG Emission Factor <sup>2</sup> (lb/10 <sup>6</sup> cf)	Emissions (lb/yr)	Emissions (tpy)
Arsenic	2.00E-04	4.73E-03	2.36E-06
Beryllium	1.20E-05	2.84E-04	1.42E-07
Cadmium	1.10E-03	2.60E-02	1.30E-05
Chromium	1.40E-03	3.31E-02	1.65E-05
Cobalt	8.40E-05	1.99E-03	9.93E-07
Lead	5.00E-04	1.18E-02	5.91E-06
Manganese	3.80E-04	8.98E-03	4.49E-06
Mercury	2.60E-04	6.15E-03	3.07E-06
Nickel	2.10E-03	4.96E-02	2.48E-05
Selenium	2.40E-05	5.67E-04	2.84E-07
Benzene	2.10E-03	4.96E-02	2.48E-05
Formaldehyde	7.50E-02	1.77E+00	8.87E-04
Hexane	1.80E+00	4.26E+01	2.13E-02
Naphthalene	6.10E-04	1.44E-02	7.21E-06
POM	8.82E-05	2.09E-03	1.04E-06
Toluene	3.40E-03	8.04E-02	4.02E-05
<b>Total HAP</b>		<b>4.46E+01</b>	<b>2.23E-02</b>

1. PTE based on maximum allowable fuel usage by permit, prorated by heat input.

2. Emission Factors from AP-42, 5th Edition, July 1998, Table 1.4-1, Table 1.4-2, Table 1.4-3, Table 1.4-4.



# APPENDIX D

STATE OF VIRGINIA  
CITY OF NEWPORT NEWS

This day personally appeared before the undersigned, a Notary Public in and for the State aforesaid, Rita Greene, and made oath as follows:

1. She is in the Tearsheet Department for The Daily Press, a newspaper published in the City of Newport News, Virginia.
2. The attached advertisement was published for 3 insertions in The Daily Press, commencing on

MARCH 31, 2005 and ending on APRIL 2, 2005.

Rita Greene  
RITA GREENE

Subscribed and sworn before me

This 4 day of APRIL 2005.

My commission expires: November 30, 2009.

Dionne S Butler  
DIONNE BUTLER  
NOTARY PUBLIC

**THE Department of the Air Force Invites Public  
Comments on the Draft Environmental Assessment  
and Draft Finding of No Significant Impact/Finding of  
No Practicable Alternative for the Construction of a  
Consolidated Communications Facility at  
Langley Air Force Base (AFB), VA**

Langley AFB has prepared a Draft Environmental Assessment (EA) to analyze the potential impacts of the construction of a new 87,284 square foot communications facility needed to provide operational/functional space to a robust communications operations infrastructure and enhance the information assurance posture of Langley AFB's mission critical Command & Control communications assets. The analysis assesses the potential environmental impacts on Langley AFB and the surrounding community. Alternatives evaluated included an alternate location for the construction and the potential implications if no action were to be taken.

The Draft EA and a Draft Finding of No Significant Impact/Finding of No Practicable Alternative will be available for public review and comment for 30 days beginning April 4, 2005 through May 3, 2005 at the following locations:

Hampton Public Library  
4207 Victoria Boulevard  
Hampton, VA 23669

York County Public Library  
100 Long Green Boulevard  
Yorktown, VA 23693

Poquoson Public Library  
500 City Hall Avenue  
Poquoson, Virginia 23662

Langley AFB Library  
42 Ash Street  
Langley AFB, VA 23665

To acquire more information or request a copy of the document, please contact Matt Goss. Written comments should be mailed to:

1 CES/CEVQA  
37 Sweeney Blvd  
Langley AFB, VA 23665-2107  
ATTN: Mr. Matt Goss

# APPENDIX E



# COMMONWEALTH of VIRGINIA

W. Tayloe Murphy, Jr.  
Secretary of Natural Resources

*DEPARTMENT OF ENVIRONMENTAL QUALITY*  
*Street address:* 629 East Main Street, Richmond, Virginia 23219  
*Mailing address:* P. O. Box 10009, Richmond, Virginia 23240  
Fax (804) 698-4500 TDD (804) 698-4021  
[www.deq.virginia.gov](http://www.deq.virginia.gov)

Robert G. Burnley  
Director

(804) 698-4000  
1-800-592-5482

June 1, 2005

Mr. Matthew Goss  
Environmental Management Flight  
Department of the Air Force  
Headquarters, 1st Fighter Wing  
1 CES/CEV  
37 Sweeney Boulevard  
Langley Air Force Base, Virginia 23665

RE: Draft Environmental Assessment and Federal Consistency Determination,  
Construction of Consolidated Communications Facility, Langley Air Force  
Base, Virginia  
DEQ-05-101F

Dear Mr. Goss:

The Commonwealth of Virginia has completed its review of the above Draft Environmental Assessment and Federal Consistency Determination (hereinafter "Draft EA"). The Department of Environmental Quality is responsible for coordinating Virginia's review of federal environmental documents prepared pursuant to the National Environmental Policy Act ("NEPA") and responding to appropriate federal officials on behalf of the Commonwealth. The Department ("DEQ") is also Virginia's lead agency for coordinating the review of federal consistency determinations filed pursuant to the Coastal Zone Management Act and the Virginia Coastal Resources Management Program. The following state agencies, regional planning district commission, and locality joined in this review:

Department of Environmental Quality  
Department of Game and Inland Fisheries  
Department of Agriculture and Consumer Services  
Department of Health  
Hampton Roads Planning District Commission  
City of Hampton.

In addition, the following agencies and locality were invited to comment:

Department of Conservation and Recreation  
Department of Transportation  
Marine Resources Commission  
Department of Historic Resources  
City of Poquoson.

### Project Description

The Air Force proposes to construct a new consolidated facility and parking lot at Langley Air Force Base. The new 2-story building would centralize the communication functions, and seven related activities would be relocated to it. The building would be constructed in the North Base Support Area. Exterior shells of existing Buildings 1004 and 1007 would be rehabilitated (Draft EA, page 1-3, section 1.3). The building would be in the field surrounded by Smythe Road and Weyland Road and North Roma Road, intruding on the first two of these roads (Draft EA, page 2-2, section 2.1). The project would include provision of separate back-up generators (page 1-3, section 1.3).

An alternative would be to construct the new facilities south of Weyland Road and west of South Roma Road, south of the North Base Support Area (page 2-3, section 2.2).

### Environmental Impacts and Mitigation

*1. Air Quality.* According to DEQ's Division of Air Program Coordination, Langley Air Force Base is in an ozone non-attainment area. For this reason, the Air Force and its contractors should restrict emissions of volatile organic compounds (VOCs) and oxides of nitrogen (NO<sub>x</sub>) to the best of their ability during construction.

*(a) Open Burning.* If project activities include the burning of construction or demolition material, this activity must meet the requirements of the Regulations for open burning (9 VAC 5-40-5600 et seq.), and it may require a permit. The Regulations provide for, but do not require, the local adoption of a model ordinance concerning open burning. The Air Force should contact appropriate local officials to determine what local requirements, if any, exist. The model ordinance includes, but is not limited to, the following provisions:

- All reasonable effort shall be made to minimize the amount of material burned, with the number and size of the debris piles;
- The material to be burned shall consist of brush, stumps and similar debris waste and clean burning demolition material;

- The burning shall be at least 500 feet from any occupied building unless the occupants have given prior permission, other than a building located on the property on which the burning is conducted;
- The burning shall be conducted at the greatest distance practicable from highways and air fields;
- The burning shall be attended at all times and conducted to ensure the best possible combustion with a minimum of smoke being produced;
- The burning shall not be allowed to smolder beyond the minimum period of time necessary for the destruction of the materials; and
- The burning shall be conducted only when the prevailing winds are away from any city, town or built-up area.

*(b) Fugitive Dust Control.* During construction, fugitive dust must be kept to a minimum by using control methods outlined in 9 VAC 5-50-60 et seq. of the Regulations for the Control and Abatement of Air Pollution. These precautions include, but are not limited to, the following:

- Use, where possible, of water or chemicals for dust control;
- Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
- Covering of open equipment for conveying materials; and
- Prompt removal of spilled or tracked dirt or other materials from paved streets and removal of dried sediments resulting from soil erosion.

*(c) Air Quality Permitting.* Fuel-burning heating facilities for the new buildings, as well as the emergency generator mentioned above (“Project Description”), may require air pollution control permits from DEQ. See “Regulatory and Coordination Needs,” item 1, below.

## *2. Water Quality and Wetlands.*

*(a) Conflicting Sites and Potential Impacts.* As indicated in the Draft EA, the proposed new building would be in the field surrounded by Smythe Road and Weyland Road and North Roma Road, intruding on the first two of these roads (Draft EA, page 2-2, section 2.1; see pages 2-4 through 2-6, Figures 2.3.1 through 2.3.3). The alternative site, Alternative A, would be constructed south of Weyland Road and west of South Roma Road, south of the North Base Support Area (page 2-3, section 2.2; see page 2-6, Figure 2.3.3).

The Air Force’s other Draft EA for the proposed Air Force Command, Control, Intelligence, Surveillance, and Reconnaissance Center (“AFC2ISRC project”), which is presently under review by the Commonwealth (DEQ-05-105F), indicates that the

Alternative B site would include a building southeast of Helms Avenue and South Roma Road, and a parking lot on the west side of South Roma Road next to an extension of Helms Avenue westward to Weyland Road (AFC2ISRC project Draft EA, page 2-5, Figure 2-3). There appears to be a potential siting conflict between Alternative A for the proposed Consolidated Communications Facility and Alternative B for the proposed AFC2ISRC project.

As DEQ's Tidewater Regional Office points out, if the alternative site (Alternative A) for the Consolidated Communications Facility were chosen, it would preclude the use of Alternative B for the AFC2ISC project as well as making additional wetland impacts more likely. According to DEQ's Tidewater Regional Office, it appears that the Air Force needs to provide two updated facilities with nearly identical square footage requirements, and at least four sites from which to choose.

*(b) Planning and Wetland Protection.* The two projects need to be coordinated, rather than analyzed in isolation, to ensure that the two least environmentally damaging alternatives are chosen as preferred alternatives (see "Project Planning Recommendations," below). In any case, they may require Virginia Water Protection Permits from DEQ; see "Regulatory and Coordination Needs," item 2, below.

If wetlands are to be affected by the proposed project, wetlands at the site must be delineated in accordance with the U.S. Army Corps of Engineers' 1987 Wetlands Delineation Manual. The wetland delineation must be approved by the U.S. Army Corps of Engineers. The project must demonstrate compliance with section 404 (b)(1) guidelines of the Clean Water Act and with the Commonwealth's wetlands mitigation policies. Both federal and State guidelines recommend avoidance and minimization of wetlands impacts as the first steps in the mitigation process.

To minimize unavoidable impacts to wetlands and waterways, DEQ recommends the following practices:

- Operate machinery and construction vehicles outside of stream-beds and wetlands; use synthetic mats when in-stream work is unavoidable;
- Erosion and sedimentation controls should be designed in accordance with the most current edition of the *Virginia Erosion and Sediment Control Handbook* (available through the Department of Conservation and Recreation's web site, <http://www.dcr.virginia.gov>). These controls should be in place prior to clearing and grading, and maintained in good working order to minimize impacts to State waters. The controls should remain in place until the area is stabilized.
- Place heavy equipment, located in temporarily impacted wetland areas, on mats, geotextile fabric, or use other suitable measures to minimize soil



disturbance, to the maximum extent practicable.

- Restore all temporarily disturbed wetland areas to pre-construction conditions and plant or seed with appropriate wetlands vegetation in accordance with the cover type (emergent, scrub-shrub, or forested). The applicant should take all appropriate measures to promote re-vegetation of these areas. Stabilization and restoration efforts should occur immediately after the temporary disturbance of each wetland area instead of waiting until the entire project has been completed.
- Place all materials which are temporarily stockpiled in wetlands, designated for use for the immediate stabilization of wetlands, on mats, geotextile fabric in order to prevent entry in State waters. These materials should be managed in a manner that prevents leachates from entering state waters and must be entirely removed within thirty days following completion of that construction activity. The disturbed areas should be returned to their original contours, stabilized within thirty days following removal of the stockpile, and restored to the original vegetated state.
- All non-impacted surface waters within the project or right-of-way limits that are within 50 feet of any clearing, grading, or filling activities should be clearly flagged or marked for the life of the construction activity within that area. The project proponent should notify all contractors that these marked areas are surface waters where no activities are to occur.
- Measures should be employed to prevent spills of fuels or lubricants into state waters.

3. *Solid and Hazardous Waste Management.* According to DEQ's Waste Division, both solid and hazardous waste issues were addressed adequately in the Draft EA. The document did not, however, include a search of waste-related data bases.

(a) *Waste Division Listings.* Waste Division staff performed a cursory review of the Division's data files and found that Langley Air Force Base is listed three ways:

- Under DEQ's Federal Facilities Installation Restoration Program (identification number VA2800005033); and
- As a Formerly Used Defense Site (FUDS) (identification number VA9799F1590); and
- As a RCRA (Resource Conservation and Recovery Act) small-quantity generator of hazardous waste (identification number VAD988222527).

The following web sites may be helpful in locating additional information about these identification numbers:

- [http://www.epa.gov/echo/search\\_by\\_permit.html](http://www.epa.gov/echo/search_by_permit.html) and
- [http://www.epa.gov/enviro/html/rcris/rcris\\_query\\_java.html](http://www.epa.gov/enviro/html/rcris/rcris_query_java.html).

In addition, the Air Force Base is listed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). See item 3(b), next.

*(b) CERCLA Listing and Nearby Sites.* Langley Air Force Base is listed on the National Priorities List (NPL). The Air Force is the party responsible for remediation of CERCLA sites on the Base in order to get it removed from the NPL. Oversight of the CERCLA sites on the Base is charged to the Langley Air Force Base Environmental Restoration Program (ERP).

The proposed building sites for the consolidated communications facility lie on top of the Base-wide Groundwater Site, ERP site OT-64. Both of these sites lie in close proximity to four active or closed ERP sites: DP-09, LF-17, OT-25, and OT-38C. Brief descriptions follow.

*(i) Site DP-09.* Site DP-09 was a gas cylinder disposal area located approximately 500 feet east of the preferred building site; this area covered 1.8 acres. A Decision Document was signed in November 1997; it recommended “No Further Remedial Action Proposed.”

*(ii) Site LF-17.* Site LF-17 is a former waste disposal area, skeet range, coastal filling (land expansion) area, and burn pit. It is located approximately 1,000 feet northeast of the preferred building site. The site covers approximately 6.2 acres (excluding the down-range area) and includes the co-located Site OT-25 and Site OT-38C. Site LF-17 is an active Environmental Restoration Program (ERP) site currently in the Feasibility Study phase of the CERCLA process.

*(iii) Site OT-25.* Site OT-25 is a former entomology building and storage yard and is now included in the restoration process for Site LF-17 (above).

*(iv) Site OT-38C.* Site OT-38C is a former waste oil and trash burning area, and is, like Site OT-25, included in the restoration process for Site LF-17.

See “Regulatory and Coordination Needs,” item 3(b), below.

*(c) Pollution Prevention.* DEQ encourages the Air Force to implement pollution prevention principles, including reducing waste at the source, re-using materials, and recycling materials to the greatest extent practicable.

*4. Natural Heritage Resources.* According to earlier correspondence from the Department of Conservation and Natural Resources (DCR), that Department has searched its Biotics Data System for occurrences of natural heritage resources in the project area (see EA, Appendix B, DCR letter dated January 29, 2004). “Natural heritage resources” are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations. DCR records indicate the presence of natural heritage resources in the vicinity of the project, but DCR does not anticipate that the communications facility project would adversely affect these resources because of the scope of the project and the distance to the resources.

See also item 5(a), below.

The Department of Agriculture and Consumer Services, following its review of the Draft EA, has no additional comments relative to endangered plant and insect species.

*5. Wildlife Resources.* The Department of Game and Inland Fisheries, as the Commonwealth’s wildlife and freshwater fish management agency, exercises enforcement and regulatory jurisdiction over wildlife and freshwater fish, including state or federally listed endangered or threatened species, but excluding listed insects. The Department (hereinafter “DGIF”) is a consulting agency under the U.S. Fish and Wildlife Coordination Act (16 U.S.C. sections 661 *et seq.*), and provides environmental analysis of projects or permit applications coordinated through the Department of Environmental Quality and several other state and federal agencies. DGIF determines likely impacts upon fish and wildlife resources and habitat, and recommends appropriate measures to avoid, reduce, or compensate for those impacts.

*(a) Canebrake Rattlesnake Potential.* DGIF indicates that, while not documented at Langley, the potential exists for canebrake rattlesnakes to live on the Base. The canebrake rattlesnake is a state-listed endangered species. The Department of Game and Inland Fisheries recommends that construction contractors be trained in the identification of canebrake rattlesnakes by way of an appropriate information sheet (enclosed).

If a canebrake rattlesnake is observed at any time during project development, the Air Force or its contractors should contact the Department of Game and Inland Fisheries immediately (telephone (804) 367-8999), so that the Department can remove and relocate the snake to a suitable site.

*(b) Stormwater Management Recommendations.* DGIF recommends that stormwater controls for this project be designed to replicate and maintain the pre-project hydrographic conditions. This should include, but not be limited to, the use of bio-retention areas, and minimizing the use of curb and gutter in favor of grassed swales.

Bio-retention areas (also called rain gardens) and grass swales are low-impact development (“LID”) concepts. They are designed to capture stormwater runoff as close to the source as possible, and allow it to slowly infiltrate into the surrounding soil. They benefit natural resources by filtering pollutants and decreasing downstream runoff volumes.

The Department of Game and Inland Fisheries generally does not support in-stream stormwater management ponds.

*6. Chesapeake Bay Preservation Areas.* The project, as proposed, does not appear to be within areas analogous to those protected by the Chesapeake Bay Preservation Act and the Chesapeake Bay Preservation Area Designation and Management Regulations, according to the Department of Conservation and Recreation’s Chesapeake Bay Local Assistance Division. However, see “Federal Consistency...,” item 1, below).

*7. Historic Resources.* The Department of Historic Resources (the State Historic Preservation Office) did not respond to our request for comments on this project. The Air Force must consult with the Department pursuant to section 106 of the National Historic Preservation Act. See “Regulatory and Coordination Needs,” item 4, below.

*7. Local and Regional Comments.* The Hampton Roads Planning District Commission, after consulting with the City of Hampton, finds the proposed project generally consistent with local and regional plans and policies.

The City of Hampton indicates that the project does not appear to affect identified natural or cultural resources on the site significantly, and agrees with the Planning District Commission that the project does not appear to conflict with local plans or policies.

The City of Hampton recommends that the Air Force and its contractors use architectural design standards in accordance with the Leadership in Energy and Environmental Design (LEED) Green Building Rating System. Use of these building standards would contribute to the reduction of maintenance costs and environmental impact, and would help to create a positive image of the Air Force facilities in the surrounding communities. Some government agencies, including the U.S. Environmental Protection Agency, have taken steps in this direction. The web site of the Green Building Council, the organization promoting LEED standards, may be helpful in locating further information (Freas/Ellis, 5/26/05):

- <http://www.usgbc.org>

More information on this topic is also available from the City of Hampton's Planning Department (James Freas, telephone (757) 728-5233).

*8. Pollution Prevention.* DEQ advocates that principles of pollution prevention be used in all construction projects as well as in facility operations. Effective siting, planning, and on-site Best Management Practices (BMPs) will help to ensure that environmental impacts are minimized. However, pollution prevention techniques also include decisions related to construction materials, design, and operational procedures that will facilitate the reduction of wastes at the source. We have several pollution prevention recommendations that may be helpful in constructing or operating this project:

- Consider development of an Environmental Management System (EMS). An effective EMS will ensure that the proposed facility is committed to minimizing its environmental impacts, setting environmental goals, and achieving improvements in its environmental performance. DEQ offers EMS development assistance and recognizes facilities with effective Environmental Management Systems through its Virginia Environmental Excellence Program.
- Consider designs, techniques, and technologies that will facilitate the re-circulation and re-use of waters used for cooling and steam generation. These techniques can save money by minimizing intake and treatment needs.
- Consider environmental attributes when purchasing materials. For example, the extent of recycled material content, toxicity level, and amount of packaging should be considered and can be specified in purchasing contracts.
- Consider contractors' commitments to the environment (such as an EMS) when choosing contractors. Specifications regarding raw materials and construction practices can be included in contract documents and requests for proposals.
- Choose sustainable materials and practices for infrastructure and building construction and design. These could include asphalt and concrete containing recycled materials, and integrated pest management in landscaping, among other things.
- Integrate pollution prevention techniques into facility maintenance and operation, to include the following: inventory control (record-keeping and centralized storage for hazardous materials), product substitution (use of non-toxic cleaners), and source reduction (fixing leaks, energy-efficient HVAC and equipment). Maintenance facilities should be designed with sufficient and suitable space to allow for effective inventory control and preventive maintenance.

DEQ's Office of Pollution Prevention provides free information and technical assistance relating to pollution prevention techniques and EMS. If interested, the Air Force may contact that Office (Tom Griffin, telephone (804) 698-4545).

#### Federal Consistency under the Coastal Zone Management Act

Pursuant to the Coastal Zone Management Act of 1972, as amended, federal activities located inside or outside of Virginia's designated coastal management area that can have reasonably foreseeable effects on coastal resources or coastal uses must, to the maximum extent practicable, be implemented in a manner consistent with the Virginia Coastal Resources Management Program (VCP). The VCP consists of a network of programs administered by several agencies. The DEQ coordinates the review of federal consistency determinations with agencies administering the Enforceable and Advisory Policies of the VCP.

The federal consistency determination appears in the Draft EA (pages 4-11 through 4-13, section 4.5.1). A public notice of the Commonwealth's review of this consistency determination appeared on DEQ's web site from April 15 through May 9, 2005. No comments were received.

Based on the information submitted and the comments of reviewing agencies, we concur that the proposed activity is consistent with the Virginia Coastal Resources Management Program, provided that the Air Force and its contractors comply with all applicable requirements.

*1. Coastal Lands Management.* The Draft EA, in discussing the enforceable policies of the VCP, fails to address the coastal lands management policy. The classification of the property in question as administrative and industrial use (page 4-12, section 4.5.1, "Coastal Lands Management" heading) bears no relevance to the requirement for the project to be consistent with the VCP, according to the Department of Conservation and Recreation's Division of Chesapeake Bay Local Assistance (DCR-DCBLA).

The Coastal Lands Management program is a state-local cooperative program administered by the Department of Conservation and Recreation's Division of Chesapeake Bay Local Assistance and 84 localities in Tidewater Virginia and established pursuant to the Chesapeake Bay Preservation Act (*Virginia Code* sections 10.1-2100 through 10.1-2114) and the Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 10-20-10 *et seq.*).

While Chesapeake Bay Preservation Areas are not locally designated on federal lands, this does not relieve the Air Force of its responsibility to be consistent with the

provisions of the Regulations, as one of the enforceable policies of the Virginia's Coastal Resources Management Program. Federal actions on installations located within Tidewater Virginia are required to be consistent with the performance criteria of the Regulations on lands analogous to locally designated Chesapeake Bay Preservation Areas.

In Hampton, the areas protected by the Chesapeake Bay Preservation Act, as locally implemented and requiring stringent performance criteria, include:

- Tidal wetlands
- Non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or tributary streams
- Tidal shores
- A 100-foot vegetated buffer area located adjacent to and landward of the aforementioned features.

Less stringent performance criteria apply to land that is contiguous to the 100 foot buffer for a distance of 100 feet in the landward direction.

The Department of Conservation and Recreation's Division of Chesapeake Bay Local Assistance indicates that this proposed project will not affect Chesapeake Bay Preservation Areas and is therefore consistent with the Coastal Lands Management enforceable policy of the Virginia Coastal Resources Management Program.

*2. Fisheries Management.* According to the Department of Game and Inland Fisheries, the proposed project is consistent with the fisheries management enforceable policy of the Virginia Coastal Resources Management Program.

#### Regulatory and Coordination Needs

*1. Air Quality Regulation.* As indicated above, the project may require air pollution control permits, for emergency generators and for heating equipment used in the buildings (see "Environmental Impacts and Mitigation," items 1(b) and 1(c)). In addition, if open burning is contemplated, open burning permits may be necessary. Questions on the applicability of, and requirements for, both these permits may be addressed to DEQ's Tidewater Regional Office (Jane Workman, Air Permits Manager, telephone (757) 518-2112).

*2. Water and Wetland Permitting.* Impacts to wetlands or waterways that are likely to result from this project may require a Virginia Water Protection Permit from DEQ. Questions on applicability of the permitting requirement and on requirements for

permit processing and compliance may be directed to DEQ's Tidewater Regional Office (Bert Parolari, telephone (757) 518-2166).

*3. Solid and Hazardous Waste Management.* All waste generated during construction must be characterized and properly disposed of, according to DEQ's Tidewater Regional Office. The Air Force is considered the generator of the waste, and the waste must be managed through the Base's hazardous waste program. See also item 3(b), below.

*(a) Contaminated Soil; Hazardous Waste.* Any soil suspected of contamination, or wastes that are generated, must be tested and disposed of in accordance with all applicable federal, state, and local laws and regulations. These include, but are not limited to, the following:

- Virginia Waste Management Act (*Virginia Code* sections 10.1-1400 et seq.);
- Virginia Hazardous Waste Management Regulations (9 VAC 20-60);
- Virginia Solid Waste Management Regulations (9 VAC 20-80);
- Resource Conservation and Recovery Act (42 U.S.C. sections 6901 et seq.).

(See enclosed DEQ memo, Brockman to Ellis, dated May 4, 2005 for additional citations.)

*(b) CERCLA Obligations.* DEQ's Waste Division, Federal Facilities Restoration Program recommends that the Air Force contact the Langley Air Force Base Environmental Restoration Office (John Tice, telephone (757) 764-1082) for information on CERCLA obligations at or near the proposed construction sites. These obligations must be undertaken prior to initiating any disturbance of land, sediment, or groundwater.

*(c) Building Demolition or Renovation.* Buildings to be demolished or renovated must be checked for asbestos-containing materials and lead-based paint. If lead-based paint is found, the Air Force must comply with state regulations in addition to those listed above, i.e. 9 VAC 20-60-261 in the Hazardous Waste Management Regulations. Similarly, if asbestos-containing materials are found, the Air Force must comply with the Solid Waste Management Regulations at 9 VAC 20-80-640 as well as with the other rules listed above.

*4. Historic Structures and Archaeological Resources.* To ensure compliance with section 106 of the National Historic Preservation Act, the Air Force must consult with the



Department of Historic Resources (Marc Holma, telephone (804) 367-2323) before proceeding with this project.

#### Project Planning Recommendations

Based on the projects recently reviewed at Langley Air Force Base, it appears that the Air Force is planning a number of projects at Langley Air Force Base, each of which requires environmental review and federal consistency review. It would be helpful to reviewers, and perhaps also to the Air Force, if the individual Environmental Assessments could make reference to a master plan document, or a Programmatic Environmental Impact Statement (EIS) and Plan, that shows, with effective topographic and other mapping and diagrams, the relationships of many of these projects to one another on the ground (and also in time). Our review of a Programmatic EIS and a master plan document, prior to a number of individual project reviews over the next few years, might enable us to respond somewhat faster to individual project documents. It would also diminish the workload of the Air Force in producing the individual documents, because in these the Air Force could make reference to the larger planning document, and the comments it received thereon, as a means of disposing of certain issues that have been effectively addressed previously. Of course, the idea presupposes that the Programmatic EIS would be prepared and reviewed in the first place; and we assume that the EIS, and accompanying plans for development, would cover a defined time frame (for example: 2005 through 2008, or 2005 through 2015). It would also be necessary to allow modification of individual projects and the Plan itself as circumstances, including fiscal and environmental constraints, make necessary.

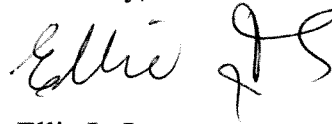
A planning effort of this nature could include such things as stormwater master plans, which might be easier to develop and follow than individual stormwater plans for each project. Providing for the effective management of stormwater in a developing area could prevent later conflicts over individual projects for which stormwater management can no longer be effectively provided. The planning effort would also allow the Air Force to make an effective allocation of its proposed land uses in accordance with development restrictions such as those inherent in wetland regulation and in Chesapeake Bay Preservation Area designations.

Thank you for the opportunity to review the EA and federal consistency determination. If you have questions, please feel free to contact me (telephone

Mr. Matthew Goss  
Page 14

(804) 698-4325) or Charles Ellis of this Office (telephone (804) 698-4488).

Sincerely,

A handwritten signature in black ink, appearing to read "Ellie L. Irons". The signature is fluid and cursive, with the first name "Ellie" being more prominent and the last name "Irons" written in a more compact, stylized manner.

Ellie L. Irons  
Program Manager  
Office of Environmental Impact Review

Enclosures

cc: Andrew K. Zadnik, DGIF  
Keith R. Tignor, VDACS  
Alan D. Weber, VDH  
C. Scott Crafton, DCR  
S. Rene Hypes, DCR-DNH  
Allen R. Brockman, DEQ-Waste  
Paul E. Herman, DEQ-Waste-FFR  
Kotur S. Narasimhan, DEQ-Air  
Harold J. Winer, DEQ-TRO  
Marlee A. Parker, VDOT  
Tony Watkinson, MRC  
Ethel R. Eaton, DHR  
J. Michael Foreman, DOF  
Alice R. T. Baird, DCR-CBLA  
John M. Carlock, Hampton Roads PDC  
James Freas, City of Hampton  
Charles W. Burgess, Jr., City of Poquoson  
—G. L. Kaden, J.M. Walker Associates

## Ellis, Charles

---

**From:** Andrew Zadnik [Andrew.Zadnik@dgif.virginia.gov]  
**Sent:** Friday, May 13, 2005 3:52 PM  
**To:** Ellis, Charles  
**Cc:** ProjectReview.Richmond\_PO.DGIF@dgif.virginia.gov  
**Subject:** 05-101F\_ESSLOG 19332\_Consolidated Comm. Facility\_Langley



Canebrake info  
sheet.pdf (435 ...)

This project involves construction of a new 40,000 sf communication facility and associated parking lots at Langley AFB. We understand that the location of the proposed construction is currently a mixture of developed property for administrative and industrial use and open space. We also understand that no wetlands will be directly impacted due to this project.

While State Endangered canebrake rattlesnakes have not been documented at Langley, the potential for their occurrence exists. Therefore, we recommend that, prior to the start of construction, all contractors are trained in the identification, basic natural history, and legal status of canebrake rattlesnakes. This could be accomplished via an appropriate information sheet distributed to those working on the project (see attached). Information also can be found on our website, <http://www.dgif.virginia.gov/wildlife/species/display.asp?id=030013>. If a canebrake rattlesnake is observed at any time during the development or construction of this project, we recommend that the applicant contact us at 804-367-8999, so that we may safely capture and relocate the animal to a suitable site.

We recommend that the stormwater controls for this project be designed to replicate and maintain the hydrographic condition of the site prior to the change in landscape. This should include, but not be limited to, utilizing bioretention areas, and minimizing the use of curb and gutter in favor of grassed swales. Bioretention areas (also called rain gardens) and grass swales are components of Low Impact Development (LID). They are designed to capture stormwater runoff as close to the source as possible and allow it to slowly infiltrate into the surrounding soil. They benefit natural resources by filtering pollutants and decreasing downstream runoff volumes. We generally do not support instream stormwater management ponds.

We feel this project is consistent with the Fisheries Section of the VA Coastal Resources Management Program.

Thank you,

Andrew K. Zadnik  
Environmental Services Section Biologist  
Department of Game and Inland Fisheries  
4010 West Broad Street  
Richmond, VA 23230

(804) 367-2733  
(804) 367-2427 (fax)

If you cannot meet the deadline, please notify CHARLIE ELLIS at 804/698-4488 prior to the date given. Arrangements will be made to extend the date for your review if possible. An agency will not be considered to have reviewed a document if no comments are received (or contact is made) within the period specified.

REVIEW INSTRUCTIONS:

- A. Please review the document carefully. If the proposal has been reviewed earlier (i.e. if the document is a federal Final EIS or a state supplement), please consider whether your earlier comments have been adequately addressed.
- B. Prepare your agency's comments in a form which would be acceptable for responding directly to a project proponent agency.
- C. Use your agency stationery or the space below for your comments. **IF YOU USE THE SPACE BELOW, THE FORM MUST BE SIGNED AND DATED.**


Please return your comments to:

MR. CHARLES H. ELLIS III  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
OFFICE OF ENVIRONMENTAL IMPACT REVIEW  
629 EAST MAIN STREET, SIXTH FLOOR  
RICHMOND, VA 23219  
FAX #804/698-4319

RECEIVED

MAY 09 2005

DEQ-Office of Environmental  
Impact Review

  
CHARLES H. ELLIS III  
ENVIRONMENTAL PROGRAM PLANNER

COMMENTS

Statements in the project document concerning endangered species were reviewed and compared to available information. No additional comments are necessary in reference to endangered plant and insect species regarding this project.

(signed) Keith R. Tignor (Keith R. Tignor) (date) May 5, 2005  
Endangered Species Coordinator  
(title) VDACS, Office of Plant and Pest Service  
(agency) \_\_\_\_\_

If you cannot meet the deadline, please notify CHARLIE ELLIS at 804/698-4488 prior to the date given. Arrangements will be made to extend the date for your review if possible. An agency will not be considered to have reviewed a document if no comments are received (or contact is made) within the period specified.

REVIEW INSTRUCTIONS:

- A. Please review the document carefully. If the proposal has been reviewed earlier (i.e. if the document is a federal Final EIS or a state supplement), please consider whether your earlier comments have been adequately addressed.
- B. Prepare your agency's comments in a form which would be acceptable for responding directly to a project proponent agency.
- C. Use your agency stationery or the space below for your comments. **IF YOU USE THE SPACE BELOW, THE FORM MUST BE SIGNED AND DATED.**

Please return your comments to:

MR. CHARLES H. ELLIS III  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
OFFICE OF ENVIRONMENTAL IMPACT REVIEW  
629 EAST MAIN STREET, SIXTH FLOOR  
RICHMOND, VA 23219  
FAX #804/698-4319

RECEIVED

MAY 16 2005

DEQ-Office of Environmental  
Impact Review

  
CHARLES H. ELLIS III  
ENVIRONMENTAL PROGRAM PLANNER

COMMENTS

No comments

(signed) Alan D. Weber (date) 5-11-05  
(title) \_\_\_\_\_  
(agency) VDH



# COMMONWEALTH of VIRGINIA

W. Tayloe Murphy, Jr.  
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Street address: 629 East Main Street, Richmond, Virginia 23219  
Mailing address: P. O. Box 10009, Richmond, Virginia 23240  
Fax (804) 698-4500 TDD (804) 698-4021  
www.deq.virginia.gov

Robert G. Burnley  
Director

(804) 698-4000  
1-800-592-5482

## MEMORANDUM

RECEIVED

TO: Charles H. Ellis, III, Environmental Program Planner

FROM: *ARB* Allen Brockman, Waste Division Environmental Review Coordinator

DATE: May 4, 2005

COPIES: Sanjay Thirunagari, Waste Division Environmental Review Manager; Paul Herman, file

SUBJECT: Environmental Assessment  
DOD/Air Force—Langley Air Force Base, Consolidated Communications Facility, DEQ Project #05-101F

MAY 04 2005

DEQ-Office of Environmental  
Impact Review

The Waste Division has completed its review of the Environmental Impact report for a consolidated communications facility at Langley Air Force Base, Hampton, in Virginia. We have the following comments concerning the waste issues associated with this project:

Both solid and hazardous waste issues were addressed adequately in the report. However, the report did not include a search of waste-related data bases. The Waste Division staff performed a cursory review of its data files and determined that the facility is under DEQ's Federal Facilities Installation Restoration Program (VA2800005033), a Formerly Used Defense Site (VA9799F1590), and a RCRA small quantity generator of hazardous waste (VAD988222527). The following websites may prove helpful in locating additional information for these identification numbers: [http://www.epa.gov/echo/search\\_by\\_permit.html](http://www.epa.gov/echo/search_by_permit.html) or [http://www.epa.gov/enviro/html/rcris/rcris\\_query\\_java.html](http://www.epa.gov/enviro/html/rcris/rcris_query_java.html). Paul Herman of DEQ's Federal Facilities Program has been contacted for his review of this report and will reply in a separate memo, if he identifies any additional issues.

Any soil that is suspected of contamination or wastes that are generated must be tested and disposed of in accordance with applicable Federal, State, and local laws and regulations. Some of the applicable state laws and regulations are: Virginia Waste Management Act, Code of Virginia Section 10.1-1400 *et seq.*; Virginia Hazardous Waste Management Regulations (VHWMR) (9VAC 20-60); Virginia Solid Waste Management Regulations (VSWMR) (9VAC 20-80); Virginia Regulations for the Transportation of Hazardous Materials (9VAC 20-110). Some of the applicable Federal laws and regulations are: the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 *et seq.*, and the applicable regulations contained

in Title 40 of the Code of Federal Regulations; and the U.S. Department of Transportation Rules for Transportation of Hazardous materials, 49 CFR Part 107.

Also, all structures being demolished/renovated/ removed should be checked for asbestos-containing materials (ACM) and lead-based paint prior to demolition. If ACM or LBP are found, in addition to the federal waste-related regulations mentioned above, State regulations 9VAC 20-80-640 for ACM and 9VAC 20-60-261 for LBP must be followed.

Please note that DEQ encourages all construction projects and facilities to implement pollution prevention principles, including the reduction, reuse, and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

If you have any questions or need further information, please contact Allen Brockman at (804) 698-4468.


# MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY - WASTE DIVISION  
Federal Facilities Restoration Program  
629 E. Main Street P.O. Box 10009 Richmond, Virginia 23240

---

**SUBJECT:** Environmental Assessment – Langley Air Force Base – Consolidated Communication Facility

**TO:** Charles H. Ellis, III, VCP

**FROM:** Paul E. Herman, P.E., FFR 

**DATE:** May 10, 2005

**COPIES:** Allen Brockman, File

The Langley Air Force Base report entitled *Draft EA for the Proposed Construction of the Consolidated Communication Facility* dated April 2005 has been reviewed as requested by Allen Brockman, Waste Division Environmental Review Manager. The document presents two potential construction sites (action alternatives) for a new Air Force Consolidated Communication Facility as well as the no-action alternative.

Langley Air Force Base (LAFB) is on the National Priorities List (NPL) and is the party responsible for remediation of CERCLA sites on Base in order to be removed from the NPL. The LAFB Environmental Restoration Program (ERP) is charged with oversight of the CERCLA sites on Base.

The proposed building sites lie atop the Base-wide Groundwater Site, ERP Site OT-64. Both of the proposed building sites lie in close proximity to four active or closed ERP sites; DP-09, LF-17, OT-25, and OT-38C. Site DP-09 was a gas cylinder disposal area that was located approximately 500 feet east-northeast of the preferred building site and covered approximately 1.8 acres. A Decision Document stating No Further Remedial Action Proposed was signed in November 1997. Site LF-17 is a former waste disposal area, skeet range, coastal filling (land expansion area), and burn pit and is located approximately 1000 feet northeast of the preferred building site. The site covers approximately 6.2 acres (excluding the down-range area) and includes the co-located Site OT-25 and Site OT-38C. This site is an active ERP site currently in the Feasibility Study phase of the CERCLA process. Site OT-25 is a former entomology building and storage yard and is now included in the restoration process for Site LF-17. Site OT-38C is a former waste oil and trash burning area and is now included in the restoration process for Site LF-17.

The Federal Facilities Restoration Program recommends the facility contact Mr. John Tice, LAFB Environmental Restoration at (757) 764-1082, for information concerning the CERCLA obligations at or near the proposed construction sites prior to initiating any land, sediment, or ground water disturbing activities.



**DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF AIR PROGRAM COORDINATION**

**ENVIRONMENTAL REVIEW COMMENTS APPLICABLE TO AIR QUALITY**

TO: Charles H. Ellis III

DEQ - OEIA PROJECT NUMBER: 05 - 101F

PROJECT TYPE: ☐ STATE EA / EIR / FONSI ☒ FEDERAL EA / EIS ☐ SCC

☒ X CONSISTENCY DETERMINATION/CERTIFICATION

PROJECT TITLE: CONSOLIDATED COMMUNICATION FACILITY

PROJECT SPONSOR: DOD / AIR FORCE

PROJECT LOCATION: ☒ X OZONE NON ATTAINMENT AREA

REGULATORY REQUIREMENTS MAY BE APPLICABLE TO: ☒ X CONSTRUCTION  
☐ OPERATION

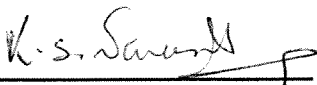
**STATE AIR POLLUTION CONTROL BOARD REGULATIONS THAT MAY APPLY:**

1. ☐ 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 E – STAGE I
2. ☐ 9 VAC 5-40-5200 C & 9 VAC 5-40-5220 F – STAGE II Vapor Recovery
3. ☐ 9 VAC 5-40-5490 et seq. – Asphalt Paving operations
4. ☒ X **9 VAC 5-40-5600 et seq. – Open Burning**
5. ☒ X **9 VAC 5-50-60 et seq. Fugitive Dust Emissions**
6. ☐ 9 VAC 5-50-130 et seq. - Odorous Emissions; Applicable to \_\_\_\_\_
7. ☐ 9 VAC 5-50-160 et seq. – Standards of Performance for Toxic Pollutants
8. ☐ 9 VAC 5-50-400 Subpart \_\_\_\_\_, Standards of Performance for New Stationary Sources, designates standards of performance for the \_\_\_\_\_
9. ☐ 9 VAC 5-80-10 et seq. of the regulations – Permits for Stationary Sources
10. ☐ 9 VAC 5-80-1700 et seq. Of the regulations – Major or Modified Sources located in PSD areas. This rule may be applicable to the \_\_\_\_\_
11. ☐ 9 VAC 5-80-2000 et seq. of the regulations – New and modified sources located in non-attainment areas
12. ☐ 9 VAC 5-80-800 et seq. Of the regulations – Operating Permits and exemptions. This rule may be applicable to \_\_\_\_\_

**COMMENTS SPECIFIC TO THE PROJECT:**

**Being in an area of ozone non-attainment, all precautions are necessary to restrict the emissions of volatile organic compounds (VOC) and oxides of nitrogen (NOx) during construction.**

**Concerning the planned backup generators our Tidewater Regional Office may be contacted for any permit needs.**

  
(Kotur S. Narasimhan)  
Office of Air Data Analysis

DATE: May 9, 2005

**RECEIVED**  
MAY 09 2005  
DEQ-Office of Environmental  
Impact Review

**Ellis, Charles**

---

**From:** Winer, Harold  
**Sent:** Thursday, May 05, 2005 8:29 AM  
**To:** Ellis, Charles; Fisher, John  
**Cc:** Johnston, Milton; Parolari, Bert  
**Subject:** FW: EIR #05-101F, Consolidated Communications Facility; EIR#05-105F, Air Force Command and Control Intelligence, Surveillance, Reconnaissance Center (AFC2ISRC)

I forgot to add **Waste Comments** to my earlier submission (attached):

**EIR #05-101F**, all wastes generated during construction must be characterized and properly disposed. Please note that Langley Air Force Base will be considered the generator of the waste and the waste must be managed through the Base's hazardous waste program.

**EIR #05-105F**, two of the proposed alternatives appear to be within or directly adjacent to ERP sites currently undergoing or projected to undergo remediation through the Federal Facilities Restoration Program. Due to the potential exposures to hazardous constituents all construction activities must be coordinated through the DEQ's Federal Facilities Restoration program.

All demolition debris and waste soils generated must be characterized and disposed at an appropriate facility.

Harold J. Winer  
 Deputy Regional Director  
 Virginia DEQ, Tidewater Regional Office  
 Phone: 757-518-2153/Fax: 757-518-2003  
 Email: hjwiner@deq.virginia.gov

-----Original Message-----

**From:** Winer, Harold  
**Sent:** Thursday, May 05, 2005 8:21 AM  
**To:** Ellis, Charles; Fisher, John  
**Cc:** Parolari, Bert  
**Subject:** EIR #05-101F, Consolidated Communications Facility; EIR#05-105F, Air Force Command and Control Intelligence, Surveillance, Reconnaissance Center (AFC2ISRC)

As requested, TRO staff has reviewed the supplied information regarding the above two EIRs and has the following comments:

**Regarding VWP issues**, we note that the two proposed projects present somewhat inconsistent and overlapping information. Document 05-105F presents three action alternatives (A, B and C) with varying degrees of surface water/wetland impacts. While it appears that alternative B appears to have the lowest acreage of impacts, the descriptions of impacts associated with this option vary within the document. Page 2-9 of the document describes wetland disturbance that may result in mitigation while Section 2.0, Description of the Proposed Action and Alternatives states that "No impacts to wetlands would occur under Alternative B or the no-action alternative." This information should be corrected as appropriate to be consistent throughout. No specific alternative is identified as the proposed action. Moreover, it appears that Alternative B under 05-105F is also presented as the alternative site, in part, for the proposal presented as 05-101F. Inasmuch as the use of the Alternative A location for the project described in 05-101F appears to preclude use of Alternative B under 05-105F, it has the added disadvantage of creating additional wetland impacts by another project by default. We feel that it is inappropriate to isolate these two projects from one another from a consistency review perspective because they are clearly related from a planning perspective. In reality, it appears that the Air Force has a need to provide at least two updated/consolidated facilities with virtually identical square footage requirements and at least four sites to choose from. These projects should be coordinated to ensure that the two least environmentally damaging alternatives are chosen as preferred alternatives.

5/5/2005

**Ellis, Charles**

---

**From:** Winer, Harold  
**Sent:** Thursday, May 05, 2005 8:21 AM  
**To:** Ellis, Charles; Fisher, John  
**Cc:** Parolari, Bert  
**Subject:** EIR #05-101F, Consolidated Communications Facility; EIR#05-105F, Air Force Command and Control Intelligence, Surveillance, Reconnaissance Center (AFC2ISRC)

As requested, TRO staff has reviewed the supplied information regarding the above two EIRs and has the following comments:

**Regarding WWP issues,** we note that the two proposed projects present somewhat inconsistent and overlapping information. Document 05-105F presents three action alternatives (A, B and C) with varying degrees of surface water/wetland impacts. While it appears that alternative B appears to have the lowest acreage of impacts, the descriptions of impacts associated with this option vary within the document. Page 2-9 of the document describes wetland disturbance that may result in mitigation while Section 2.0, Description of the Proposed Action and Alternatives states that "No impacts to wetlands would occur under Alternative B or the no-action alternative." This information should be corrected as appropriate to be consistent throughout. No specific alternative is identified as the proposed action. Moreover, it appears that Alternative B under 05-105F is also presented as the alternative site, in part, for the proposal presented as 05-101F. Inasmuch as the use of the Alternative A location for the project described in 05-101F appears to preclude use of Alternative B under 05-105F, it has the added disadvantage of creating additional wetland impacts by another project by default. We feel that it is inappropriate to isolate these two projects from one another from a consistency review perspective because they are clearly related from a planning perspective. In reality, it appears that the Air Force has a need to provide at least two updated/consolidated facilities with virtually identical square footage requirements and at least four sites to choose from. These projects should be coordinated to ensure that the two least environmentally damaging alternatives are chosen as preferred alternatives.

Thanks for the opportunity to comment.

Harold J. Winer  
Deputy Regional Director  
Virginia DEQ, Tidewater Regional Office  
Phone: 757-518-2153/Fax: 757-518-2003  
Email: [hjwiner@deq.virginia.gov](mailto:hjwiner@deq.virginia.gov)

5/5/2005

W. Tayloe Murphy, Jr.  
Secretary of Natural  
Resources



RECEIVED

MAY 24 2005

DEQ-Office of Environmental  
Impact Review

Joseph H. Maroon  
Director

**COMMONWEALTH of VIRGINIA**  
**DEPARTMENT OF CONSERVATION AND RECREATION**

101 N. 14<sup>th</sup> Street, 17<sup>th</sup> Floor  
Richmond, Virginia 23219-3684  
PHONE: (804) 225-3440 FAX: (804) 225-3447

May 18, 2005

Mr. Charles Ellis III  
Department of Environmental Quality  
Office of Environmental Impact Review  
629 East Main Street, Sixth Fl  
Richmond, Virginia 23219

Re: Consolidated Communications Facility, Langley Air Force Base  
DCR-DCBLA Project # FSPR-USAF-04-05

Dear Mr. Ellis,

We have reviewed the Environmental Assessment and Consistency Determination for the Proposed Consolidated Communications Facility at Langley Air Force Base, as requested, and have the following comments:

Pursuant to the Coastal Zone Management Act of 1972, as amended, Federal activities affecting Virginia's coastal resources or coastal uses must be consistent with the Virginia Coastal Resources Management Program (VCP)(see section 307(c)(1) of the Act and the *Federal Consistency Regulations*, 15 CFR Part 930, sub-part C). The Environmental Assessment does not address the Chesapeake Bay Preservation Act within the Coastal Lands Management section (page 4-12) evaluating the plan's consistency with the Coastal Zone Management Act and the Virginia Coastal Resources Management Program (VCP). The classification of the property as Administrative and Industrial use bears no relevance to the requirement for the project to be consistent with Virginia's Coastal Program.

The Coastal Lands Management program is a state-local cooperative program administered by the Department of Conservation and Recreation's Division of Chesapeake Bay Local Assistance and 84 localities in Tidewater, Virginia established pursuant to the Chesapeake Bay Preservation Act; Code of Virginia § 10.1-2100 thru § 10.1-2114 and Chesapeake Bay Preservation Area Designation and Management Regulations; Virginia Administrative Code 9 VAC 10-20-10 *et seq.*

While Chesapeake Bay Preservation Areas are not locally designated on federal lands, this does not relieve the Air Force of its responsibilities to be consistent with the

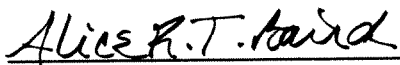
provisions of the Chesapeake Bay Preservation Area Designation and Management Regulations (Regulations), as one of the enforceable programs of Virginia's Coastal Resources Management Program (VCRMP). Federal actions on installations located within Tidewater Virginia are required to be consistent with the performance criteria of the Regulations on lands analogous to locally designated Chesapeake Bay Preservation Areas.

In Hampton, the areas protected by the Chesapeake Bay Act, as locally implemented requiring stringent performance criteria, include: tidal wetlands, non-tidal wetlands connected by surface flow and contiguous to tidal wetlands or tributary streams, tidal shores and a 100-foot vegetated buffer area located adjacent to and landward of the aforementioned features. Less stringent performance criteria apply to land that is contiguous to the 100-foot buffer for a distance of 100 feet in the landward direction.

The project as proposed does not appear to be within areas analogous to those protected by the Chesapeake Bay Preservation Act and Regulations. We concur with the finding of No Significant Impact with regard to the *Chesapeake Bay Preservation Act & Regulations*.

We appreciate the opportunity to provide comments on this project. Please do not hesitate to contact us at 1-800-CHESBAY should you have any questions.

Sincerely,

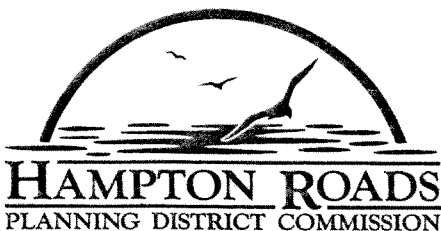


Alice R. T. Baird, LA  
Chesapeake Bay  
Special Projects Coordinator



Brad Belo  
Chesapeake Bay  
Senior Environmental Planner

C: Scott Crafton, DCR



JEANNE ZEIDLER, CHAIR • PAUL D. FRAIM, VICE CHAIRMAN • JAMES O. MCREYNOLDS, TREASURER

ARTHUR L. COLLINS, EXECUTIVE DIRECTOR/SECRETARY

**CHESAPEAKE**

Clarence V. Cuffee, *City Manager*  
Dalton S. Edge, *Mayor*  
Debbie Ritter, *Council Member*

**FRANKLIN**

Mark S. Fetheroff, *Council Member*  
Rowland L. Taylor, *City Manager*

**GLOUCESTER COUNTY**

John J. Adams, Sr., *Board Member*  
William H. Whitley, *County Administrator*

**HAMPTON**

Randall A. Gilliland, *Council Member*  
Ross A. Kearney, II, *Mayor*  
Vacancy

**ISLE OF WIGHT COUNTY**

W. Douglas Caskey, *County Administrator*  
Stan D. Clark, *Chairman*

**JAMES CITY COUNTY**

Michael J. Brown, *Chairman*  
Santford B. Wanner, *County Administrator*

**NEWPORT NEWS**

Charles C. Allen, *Vice Mayor*  
Joe S. Frank, *Mayor*  
Edgar E. Maroney, *City Manager*

**NORFOLK**

Paul D. Fraim, *Mayor*  
Donald L. Williams, *Council Member*  
Regina V.K. Williams, *City Manager*  
Barclay C. Winn, *Council Member*  
W. Randy Wright, *Council Member*

**POQUOSON**

Charles W. Burgess, Jr., *City Manager*  
Gordon C. Helsel, Jr., *Mayor*

**PORTSMOUTH**

Stephen E. Heretick, *Council Member*  
James B. Oliver, Jr., *Interim City Manager*  
Charles B. Whitehurst, Sr., *Council Member*

**SOUTHAMPTON COUNTY**

Anita T. Felts, *Board Member*  
Michael W. Johnson, *County Administrator*

**SUFFOLK**

R. Steven Herbert, *City Manager*  
Bobby L. Ralph, *Mayor*

**SURRY COUNTY**

Terry D. Lewis, *County Administrator*  
Judy S. Lyttle, *Board Member*

**VIRGINIA BEACH**

Harry E. Diezel, *Council Member*  
Robert M. Dyer, *Council Member*  
Louis R. Jones, *Vice Mayor*  
Meyera E. Oberndorf, *Mayor*  
Peter W. Schmidt, *Council Member*  
James K. Spore, *City Manager*  
James L. Wood, *Council Member*

**WILLIAMSBURG**

Jackson C. Tuttle, II, *City Manager*  
Jeanne Zeidler, *Mayor*

**YORK COUNTY**

James O. McReynolds, *County Administrator*  
Thomas G. Shepperd, Jr., *Chairman*

May 4, 2005

**RECEIVED**

MAY 6 2005

DEQ Office of Environmental  
Impact Review

Mr. Charles H. Ellis, III  
Department of Environmental Quality  
Office of Environmental Impact Review  
629 East Main Street, Sixth Floor  
Richmond, Virginia 23219

Re: Consolidated Communications  
Facility, Langley AFB  
DEQ 05-101F (ENV:GEN)

Dear Mr. Ellis:

Pursuant to your request of April 8, 2005, the staff of the Hampton Roads Planning District Commission has reviewed the Draft Environmental Assessment and Consistency Determination for the proposed construction of a Consolidated Communications Facility at Langley Air Force Base. We have contacted the City of Hampton regarding the project.

Based on our review, it appears that the proposal is generally consistent with local and regional plans and policies. The City of Hampton has submitted additional comments to you in a separate letter (copy attached). We concur with their comments.

We appreciate the opportunity to review this project. If you have any questions, please do not hesitate to call.

Sincerely,

Arthur L. Collins  
Executive Director/Secretary

MLJ:fh

Attachment

Copies: Mr. James Freas, HA

RECEIVED

APR 27 2005

DEQ-Office of Environmental  
Impact Review



City of Hampton

APRIL 25, 2005

Charles H. Ellis III  
Department of Environmental Quality  
Office of Environmental Impact Review  
629 East Main Street, Sixth Floor  
Richmond, VA 23219

**Re: Comment on draft Environmental Assessment -  
Consolidated Communications Facility  
Langley Air Force Base, Virginia  
Project number – 05-101F**

Dear Mr. Ellis:

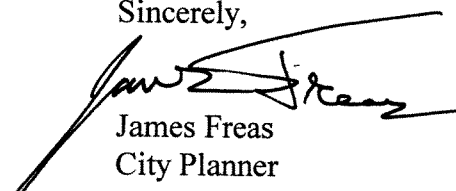
Planning staff has received and reviewed the draft Environmental Assessment (EA) for the construction of the Consolidated Communications Facility at Langley Air Force Base (LAFB), Virginia. The project entails building a new 87,284 square foot facility and associated parking.

The project scope does not appear to impact the site significantly with respect to any of the identified natural and cultural resources. In addition, the project does not appear to conflict with any of the City's current plans or policies.

The City recommends that LAFB utilize architectural design standards in accordance with the Leadership in Energy and Environmental Design (LEED) Green Building Rating System. These building standards would contribute towards reducing maintenance costs, reducing environmental impacts, improving worker productivity, and would help to create a positive image of the base in the community.

Please let me know if I can be of further assistance regarding this project (757-728-5233 or [jfreas@hampton.gov](mailto:jfreas@hampton.gov)).

Sincerely,

  
James Freas  
City Planner

PLANNING DEPARTMENT (757) 727-6140 FAX: (757) 728-2449  
ONE FRANKLIN STREET, SUITE 603, HAMPTON, VIRGINIA 23669-3522